

# THE SCHOOL REVIEW

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## Educational News and Editorial Comment

### THE NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS

The twelfth annual convention of the National Association of Secondary School Principals, held in Boston February 27-29, marked the end of the association as an independent organization. Changes in the constitution of the association initiated last year at the annual meeting held in St. Louis were approved at the opening session which made the organization a division of the National Education Association with the title "The Department of Secondary School Principals." Administrative officers of junior high schools, senior high schools, and junior colleges and persons engaged in secondary education in colleges or schools of education are eligible to regular membership in the new department provided they are also members of the National Education Association.

The new department begins its history auspiciously, according to the report of the secretary-treasurer. It has approximately 3,500 members and is adequately supplied with funds. For a membership fee of two dollars a year, each member receives five special bulletins, one of which contains the addresses and proceedings of the annual meeting. The problem which thus confronts the officers of the new

organization is not one of maintenance but rather one of properly directing the interests and activities of the members.

One session of the convention was devoted to section meetings for those interested primarily in the work of the junior high school or the senior high school. The separate programs were specific, and the meetings were well attended. The papers presented stimulated spirited discussion.

The luncheon meeting on Tuesday, February 28, was attended by five hundred people despite the fact that it conflicted with the luncheon of Phi Delta Kappa. The past presidents of the association were guests of honor. Secretary J. W. Crabtree welcomed the new department into the National Education Association; Professor Thomas H. Briggs reviewed the significant professional contributions of the National Association of Secondary School Principals and indicated improvements which should be made by the new department. Addresses were made by Cameron Beck, personnel director of the New York Stock Exchange, and Gerrit A. Beneker, artist and lecturer and painter of the United States Victory Loan poster.

A new feature of the convention was the joint meeting with the Department of Superintendence held on Tuesday evening, February 28, at which the topic of discussion was "Supervision in the Secondary School." Those who participated in this program were Francis L. Bacon, president of the National Association of Secondary School Principals; Cornelia S. Adair, president of the National Education Association; William McAndrew, editor of the *Educational Review*; and Charles H. Judd, director of the School of Education, University of Chicago.

The closing session was given over to the discussion of Bulletin Number 19, *Guidance in Secondary Schools*, which is the report of the Committee on Educational and Vocational Guidance. In addition to supplementary reports on different aspects of guidance by members of the committee, Professor L. V. Koos, University of Minnesota, read a paper on "The Status of Counseling and Guidance in Secondary Schools."

The officers of the department for the ensuing year are: President: J. Stevens Kadesch, headmaster of the Medford High School, Medford, Massachusetts. First vice-president: Truman G. Reed,

principal of the Central Intermediate High School, Wichita, Kansas. Second vice-president: William F. Ewing, assistant superintendent of schools, Oakland, California. Executive secretary: H. V. Church, superintendent of the J. Sterling Morton High School and Junior College, Cicero, Illinois. Executive committee: Francis L. Bacon, principal of the J. Sterling Morton High School, Cicero, Illinois; Galen Jones, principal of the Port Arthur High School, Port Arthur, Texas; and E. H. Kemper McComb, principal of the Emmerich Manual Training High School, Indianapolis, Indiana.

#### DESIRABILITY OF EARLIER ENTRANCE ON ADVANCED STUDIES

Some years ago President A. L. Lowell made a study of the Harvard graduates who had entered the professional schools of law and medicine. Among other facts, he found that the younger students were, in general, more proficient than were the older students. In his latest annual report President Lowell comments on the desirability of early entrance on college careers and a consequent earlier preparation for graduate courses. In his discussion he refers to the duty of the secondary schools of the country in the following pointed terms.

American secondary schools do not complete the teaching that ought to be done at the age our young men come to college. The result is that with the preparation now required for professional and business life—much longer than it was formerly—the young man does not begin his active career until a later age than is wise.

Masters of secondary schools have often asserted that they could prepare boys for college earlier if sent to them younger, and there can be no doubt that boys would be prepared earlier if there was a demand for it.

Although the feeling seems to be gaining ground that education is finished at too advanced an age, a considerable number of parents whose sons are prepared for college and pass their admission examination at seventeen, postpone their entrance for a year. This is almost always a mistake. Students who enter college young are on the average better scholars and incur less serious discipline than those who are older.

President Lowell also dwells on the necessity of improving the quality of instruction in secondary schools. He says in part:

The American college has been doing a great deal of teaching that properly belongs to the secondary schools, and no graduate school in this country has confined itself to work of strictly graduate character.

Such a condition is unfortunate, but it is inevitable, because American

secondary schools do not complete the secondary teaching that ought to be done at the age our young men come to college; and hence little of the instruction in college has been on a real university level.

Nor can a change in either respect be made suddenly. The schools are improving slowly but cannot do so rapidly until the teaching of the children begins younger and is carried on faster in the earlier years. Meanwhile, so far as possible, we are striving to give all our undergraduates instruction better fitted for mature minds, and more and more as this becomes common will the graduate school have to adapt itself to men having such a preparation, probably with the view to an ultimate transformation of its methods.

#### VALUE OF EXTENSIVE READING AND OF INTENSIVE READING

The value of extensive reading as contrasted with the value of intensive study of a limited number of assignments was recently made a subject of experimental study by Nancy G. Coryell, of the Wadleigh High School, New York City. The procedure and the results of the inquiry were reported in the *New York Sun* in an article by Miss Coryell which summarizes briefly her book entitled, *An Evaluation of Extensive and Intensive Teaching of Literature*, published by Teachers College, Columbia University. A part of the article is as follows:

The specific purpose of the experiment was to demonstrate which method of teaching literature is more effective for comprehension and appreciation on the part of high-school students: the extensive, that is, the very rapid reading of a comparatively large amount of literature with general comments and discussions in class, or the intensive—or detailed—analytical study of the minimum of literature required by the syllabus.

The procedure was as follows:

Nine eleventh-year classes were taken over and were kept intact throughout the year as far as program difficulties permitted. Three of these classes used the intensive method. Three other classes, taught by the same three teachers, all used the extensive method. The remaining three classes were not experimental groups but were used as controls to check up on the other six classes.

The pupils in the experimental classes were divided into superior, average, and low groups on the basis of their previous achievement in English and their scores and intelligence quotients on standard tests. The table of classification shows that the parallel extensive and intensive A, B, and C groups were very evenly matched.

The reading was so planned that the intensive-study classes covered the literature required by the syllabus. Within the same time the extensive-reading classes read six times as much.

At the close of each period of literature work a forty-minute objective test,

consisting of fifty questions, was given on the minimum requirement. Although the tests were based on the minimum of literature, which had been studied intensively by the one group and read along with five times as much additional literature by the extensive-reading classes, the extensive-reading classes did as well as the intensive-study classes. In fact, the average extensive-reading group scored considerably higher than the average intensive-study group.

Records were also kept of the scores of all students in the experimental classes on the school term uniform tests and on the Regents' examinations. In both school and Regents' examinations the extensive-reading classes scored as high as the intensive-study classes. Hence, it would seem that extensive reading is as good preparation for passing examinations as intensive study.

Since the purpose of the experiment was to demonstrate methods of teaching literature, the interest centered in the class work of the experimental groups. Accordingly, twelve stenographic records were made of representative classroom recitations. Two reports were taken for each of the six required pieces of literature, one in the intensive-study class and the other in the extensive-reading group. Both records were made on the same day during the regular class periods and with the same teacher conducting both classes.

To make these reports more vital than a bald record of question, answer, or discussion could be, the chairman of the English department, Miss Mary P. Eaton, visited the classes when the records were being made and has written into the reports a running comment on the recitations.

These stenographic reports were subjected to every available type of statistical measurement. The results show that in the extensive-reading classes the recitations of the pupils emphasize the objectives which are considered of greater value and importance, whereas in the intensive-study classes the emphasis falls on those objectives ranked as less important. The word count of the stenographic reports, moreover, shows greater readiness and rapidity of expression in the extensive-reading classes, as the total number of words spoken by the pupils in the extensive-reading groups is in every instance considerably larger than the total for the other classes. Consequently, in both quality and quantity the work of the extensive-reading students surpasses that of the intensive-study pupils.

The experiment seems to warrant the conclusion that pupils of all grades of ability can read from five to six times as much literature as the minimum requires and pass their examinations successfully, for they can read this increased amount with as much real comprehension as they would have if they dealt with it in an intensive manner. Moreover, extensive reading results in much keener appreciation, since the recitations emphasize those objectives which call for appreciation in the truest and widest sense.

The pupils themselves are more genuinely interested under the extensive method, for they express their ideas more readily and fully and with a spontaneity and originality that show a higher degree of enjoyment.

## TRENDS IN HIGH-SCHOOL ENROLMENTS IN NORTH DAKOTA

In the February issue of the *School of Education Record of the University of North Dakota* is an article by Fred von Borgersrode containing a table showing the percentages of election over a period of years of the various subjects pursued by pupils in the classified high schools of North Dakota. The table of percentages and the accompanying comments are as follows:

The following table shows for subject-unit enrolments the trend and relative emphasis of various subject groups. Only the ratios are given. To permit better understanding, a brief interpretation of the trend in each subject group is appended.

PERCENTAGE DISTRIBUTION OF SUBJECT-UNIT ENROLMENTS BY SUBJECT GROUPS IN NORTH DAKOTA CLASSIFIED HIGH SCHOOLS FOR THE ODD-NUMBERED YEARS 1907-08 THROUGH 1925-26

Subject Group	1925- 26	1923- 24	1921- 22	1919- 20	1917- 18	1915- 16	1913- 14	1911- 12	1909- 10	1907- 08
English.....	23.5	23.8	26.1	26.9	26.1	27.2	27.2	27.0	25.6	26.9
Ancient foreign languages.....	6.2	6.6	6.2	6.4	6.1	6.6	7.8	10.4	11.7	14.1
Modern foreign languages.....	2.8	3.7	3.9	4.6	6.6	7.7	7.6	6.3	5.5	5.2
Mathematics.....	13.8	14.5	15.8	17.1	16.7	17.2	18.5	19.7	17.7	18.7
Natural science.....	13.8	12.5	11.2	13.8	14.4	13.8	11.7	10.7	13.9	10.5
Social science.....	15.9	16.0	14.6	16.4	15.0	13.8	13.0	13.5	12.5	13.1
Practical arts.....	2.8	2.8	5.1	6.5	6.4	6.8	6.7	4.5	2.4	0.4
Commercial subjects.....	3.8	4.0	3.4	4.2	4.3	3.3	3.7	3.0	4.8	3.0
Fine arts.....	3.9	1.7	2.5	1.2	1.3	1.4	2.1	4.2	5.2	7.9
Physical training.....	12.3	10.8	8.5	0.5	0.3	.....	.....	.....	0.5	.....
Miscellaneous.....	1.2	3.6	2.7	2.4	2.8	2.2	1.7	0.7	0.2	0.2
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## ENGLISH

About one-fourth of the entire subject-unit load is found in the field of English. Although the actual number of units in English has more than quadrupled during the eighteen-year period and has displayed a relatively steady growth each succeeding period, the ratio to the total enrolment has slightly decreased, particularly during the last two periods. The gain has been relatively steady in all subjects, with the exception of penmanship and spelling, which has disappeared as a high-school subject since 1919-20. Public speaking, which had not been taught during the previous two periods, evidences a strong revival in 1925-26.

## ANCIENT FOREIGN LANGUAGES

With the sole exception of Greek, which some ambitious high school offered to three students in 1907-08, four years of Latin constitute the offering in

ancient foreign languages. For the first six periods the total enrolment remained fairly constant, although the percentages steadily declined. Since 1917-18 there has been a rapid gain, the total enrolment more than doubling during the last eight years. Despite that fact, the increase in Latin during the last decade has barely kept pace with the total increase in all subjects.

#### MODERN FOREIGN LANGUAGES

In actual unit enrolments the modern foreign languages show a steady increase up to 1915-16. During the next two periods there was a rather sharp decline due to the almost complete disappearance of German as a consequence of our entry into the World War. Since 1917-18 the enrolment has remained quite stable although the relative enrolment has constantly declined. Norse, which first appeared in 1913-14, and Spanish, introduced in 1917-18, have not flourished. French, which was introduced as a substitute for German, has been more popular but is steadily losing ground.

#### MATHEMATICS

Despite the fact that the total unit enrolment in mathematics has more than tripled during the eighteen years, there has been a slow decline in the percentages of total offerings. During the last three periods elementary algebra has had the largest pupil enrolments of any single subject in the program of studies. Part of this is undoubtedly due to the presence of repeaters. In marked contrast to prevailing curricular tendencies, correlated mathematics was reported as being offered only in 1923-24 (to 132 pupils), after which it was abandoned.

#### NATURAL SCIENCES

The unit enrolments in the natural sciences have increased more than six-fold during the eighteen-year interval. Yet, relatively, this group has just about held its own. There has been much shifting within the field. Agronomy, geology, and bacteria, yeasts, and molds have long disappeared. Biology has appeared during the last two periods, and general science exhibits a gratifying growth.

#### SOCIAL SCIENCES

As may be expected, the social sciences display within recent years a rather noteworthy increase in total enrolments, although the ratio has changed but little during the last five periods. English history and sociology have vanished as separate subjects. Ancient history, which was by far the dominating subject in this group up to 1923-24, has sharply declined since then. United States history and civics, economics, and social problems are forging to the front.

#### PRACTICAL ARTS

The practical arts, which include mainly manual training and home economics, are apparently having a rather difficult struggle for existence. Manual training declined sharply after 1921-22, although mechanical drawing has held its own since 1915-16. Home economics gained steadily up to 1921-22, after which it also slumped.

**COMMERCIAL SUBJECTS**

Enrolment in the commercial subjects has kept pace with the trend of increase in total enrolments. Typewriting is most popular, and bookkeeping and commercial law are next in order. Commercial arithmetic and commercial geography have been greatly stimulated during the last two periods.

**FINE ARTS**

Enrolments in the fine arts, consisting of music and freehand drawing, have fluctuated widely. Since the war period a vigorous interest has been manifested in music, the enrolment increasing more than tenfold. On the contrary, drawing has, since 1913-14, been of practically no importance as a functioning subject.

**PHYSICAL TRAINING**

Judging by enrolments, physical education has had the most spectacular development of all subjects. This was markedly stimulated by the health propaganda released following the war. Every school is now required by law to offer physical training, but with many compliance is a mere gesture.

**MISCELLANEOUS**

The chief subjects included are psychology, pedagogy, and Bible study. The first increased steadily up to 1923-24, after which it suffered a marked decline. The trend of pedagogy has been somewhat similar, but it ceased to be offered after 1923-24. There has never been any marked interest in Bible study.

**INTERFERENCE BY COACHES IN HIGH-SCHOOL  
GAMES PROHIBITED**

Interference by a coach or other adult will not be allowed hereafter in sectional and league championship contests of New York high schools. By recent unanimous vote, the central committee of the New York Public High School Athletic Association prohibited such interference during actual playing time and rest periods. The recommendation was made that coaches of opposing teams remain together during play periods and keep in touch during intermissions. Violation of the regulation will result in suspension for a year of the school whose representative was at fault. The new restriction does not prohibit withdrawal by a coach or his representative of any contestant at any time, but the person withdrawn will not be allowed to return to the same contest.

**A YEAR OF WORK BETWEEN HIGH SCHOOL AND COLLEGE**

After reviewing a number of statements that have been made by college executives regarding large registrations in colleges, an article

in the *Christian Science Monitor* suggests that a method of dealing with the situation which can be defended on educational and economic grounds would be to interpose a year of work between high school and college. A part of the article is as follows:

Probably the most difficult task a college has today is to teach the student who comes to it without any fixed notion of what he wants to learn or what he shall do with his learning after he gets it—in other words, the student who has made no choice of a vocation. If the university is to prepare the student for the business of living, the youth should know something at the start of what living—and that means working—is like. Then he will know better how to take hold of what the university offers. That is the need for maturity, something few schools can impart, something the student must furnish.

And how shall he furnish it? There is one recipe that used to be looked upon by school men with great disfavor but which arouses less opposition now and has some advantages to recommend it—the proposal that the boy or girl be advised to consider spending one year outside of school, at work, between high school and college. To be sure, it is not the plan that every student should follow, but it is a course which every high-school Senior will do well to weigh to see whether he might profit by it, particularly if he is undecided what he wishes to study and do in and after college.

The youth finishing high school is usually urged to go directly into college lest a year away from the classroom, a year of earning in an "everyday job," may divert him from his purpose. But there is a possibility that something other than college may be best for him. He may find that his bent is such that he can continue his education more effectively on the farm, in the shop, the office, the correspondence school, the extension class, the junior college, trade school, or business school than in a university. College is only one way of getting an education. If staying out of school a year helps some to discover that their faculties are in some field of practical learning apart from the formal four-year liberal-arts course, it will have helped them to avoid possible disappointment. These youths will have had a part in the selection which is essential to a proper functioning of the colleges and universities. By choosing their careers and mode of training more intelligently, they will have lightened considerably the universities' task of selecting those who need the universities' type of preparation.

The majority of those who were genuinely interested in college at the time of high-school graduation will find that interest heightened rather than diminished by a year's contact with the working world. Studies which seemed abstract in high school will reveal practical applications, and the youth will see where even a great deal more knowledge is called for in the problems of everyday endeavor. If he is thrifty, his means for going to college will be reinforced. He will have time to try out something akin to the work he thinks he wants to make his vocation, and, if it turns out less attractive than he expected, he may have time to "find" himself in something to which he is better adapted.

Besides this, a year spent in employment will give many a boy or girl a more practical basis from which to view his or her university studies, to weigh what is worth retaining from texts and lectures, to fix better in memory things that relate to actual experience, to appreciate more deeply the value of mental habits of analysis and research—in general, to get more out of college. Especially for the "bookworm" type of student, such a year is likely to give balance to the academic work.

Some such idea as that expressed by the writer of this article is back of the part-time programs which have been tried in a number of high schools and colleges. A similar idea is to be found in the pronouncement recently issued by the National Association of Manufacturers in which it is contended that engagement in industrial pursuits can properly be thought of as a means of education.

Before any of these contentions can be accepted as sound, there will have to be a reorganization of industrial conditions that will insure guidance and proper supervision to the youth who enter upon employment. The limitations of the schools are many, but the poorest school constantly seeks to provide the individual with opportunities for improvement. There are industrial concerns which seek to improve individual employees, but the fundamental purpose of industry is not such as to guarantee any large amount of attention to the interests of the employees' personal lives. It would certainly be a calamity to send high-school pupils into the industrial world for a year in the expectation that the experience which would be accumulated would inspire interest or result in self-improvement.

The educational system is evolving in a direction which gives promise of providing all the advantages that advocates of industry seek. This it is doing without jeopardizing the individual.

THE DEPARTMENT OF RESEARCH OF THE PUBLIC SCHOOLS  
OF DENVER, COLORADO

The following announcement is issued by the superintendent of schools of Denver, Colorado.

The department of classification, statistics, and building program in the Denver public schools has been reorganized and renamed. It will now be known as the "department of research." Charles E. Greene, formerly director of measurements, has been made the head of the department as "director of research." Guy Fox, of Colorado Springs, has been appointed assistant director of research and Wilford Woody, research assistant. In addition, the department consists

of one psychological examiner working full time, one psychological examiner working half time, and three stenographers and clerks. Extra clerical help during rush periods is available.

The department of research will take care of both instructional and administrative research. In instructional research the present comprehensive testing program will be continued. The major portion of this program is devoted to the construction and giving of tests based on new curriculums. These tests are used for evaluating the courses of study and for improving the teaching. Another function of the testing program is the classification of pupils by means of achievement and intelligence tests. An important phase of instructional research is the direction and supervision of investigations of educational procedures, of which a large number are being carried on at the present time in the Denver public schools.

In the field of administrative research the department will have charge of the following: (1) budget preparation and research, (2) building-program research, (3) studies of administrative functions, and (4) all regular statistical reports.

The department will also take care of miscellaneous assignments, such as answering questionnaires and inquiries from other school systems, assist in the gathering of data for public-school monographs, edit and prepare the Denver public-schools bulletin, and the like.

#### A PILGRIMAGE OF MEXICAN TEACHERS

A communication from the department of education of the republic of Mexico dated January 30, 1928, is as follows:

Dr. C. N. Thomas, of San Jose, California, director general of the International Council for Educational Progress, recently arrived in Mexico City, bringing with him letters of introduction to President Calles, Secretary of Education Puig Casauranc, and to Assistant Secretary of Education Moises Saenz from Governor Young of California, Dr. W. W. Campbell, of the University of California, Dr. Ray Lyman Wilbur, president of Stanford University, President Ernest C. Moore, of the University of California, as well as from teachers' organizations, extending through them an invitation to one hundred teachers and school administrators of Mexico to be the guests of California educators for one month this coming spring.

Dr. Thomas left this morning bearing letters from the Mexican educators and President Calles to his California group, heartily accepting the cordial invitation. President Calles expresses his profound appreciation to the Californians for their great interest in the Mexican program and progress of education. He was deeply touched by the thoughtfulness and by the plan, which will no doubt aid in bringing a closer and deeper understanding between the educators of the two nations. The program as matured to date is somewhat as follows:

The Mexican government will bring the teachers and school administrators

to the border at El Paso or Nogales. There they will be received by the Californians and be their guests on a two weeks tour into northern California with Berkeley as the center and a two weeks stay in southern California with Los Angeles as the center. While in northern California they will have the opportunity of listening to some of the outstanding educators of the universities as well as school administrators explaining to them California's aim and progress along educational lines. They are to be the guests in the homes of citizens about the Bay region. They also will be guests for one day at Mills College; one day at Stanford University; two days at San Jose, where they will visit the normal school, the University of Santa Clara, and some of the rural schools of Santa Clara County. One evening they will be the honored guests of President W. W. Campbell at the famous Lick Observatory. They will also be taken on a sightseeing trip of 150 miles. All their expenses for this visit will be defrayed.

Not only are they to receive an insight into educational institutions, but they will be invited to learn about the work of the Y.M.C.A., the Y.W.C.A., the scout movement, the Community Chest, and all organizations that make for wholesomeness and better development of the youth. The Californians expect to receive from their guests insight into the Mexican educational program, progress, and difficulties; and there will be many opportunities arranged for the Mexican visitors to appear before various social-service clubs, women's clubs, high schools, colleges, and universities.

#### FREE SECONDARY EDUCATION IN FRANCE

The London *Times Educational Supplement* has published a statement by the Paris correspondent which gives a clear account of the educational and social evolution which is tending to make French secondary education free. The statement is as follows:

The budget for 1928, which has been adopted by the French Parliament, provides money for a first instalment of free education in certain types of secondary schools, to begin on October 1 next. Although the sum voted for the last quarter of this year is only about £2,700 (333,000 francs), corresponding to an expenditure of about 1,000,000 francs in a full school year, the reform is potentially much more important than this slender provision would appear to indicate. It establishes a principle which can be applied progressively to an increasing number of schools. In the view of M. Herriot, the present minister of education, it is calculated to lead in the end to the abolition of fees in all secondary schools, but that is clearly too costly a measure to come at present within "practical politics."

As is so often the case, this preliminary reform is not, in the first instance, the offspring of a theory or an ideal but is designed to put an end to an anomaly which has grown up in the actual practice of education. The cause of the anomaly is the increasing tendency of elementary education to spread into fields formerly reserved for secondary education. In many provincial towns there

exist side by side a *collège*, or secondary school, and a higher elementary school (*école primaire supérieure*). The *collège*, of which the building is owned by the municipality though the educational administration is under state control, provides a full course of instruction leading up to the *baccalauréat*, the passing of which gives pupils the right to compete for entry into the universities. The *école primaire supérieure* is, as its name implies, an outgrowth of the elementary school. Pupils pass into it from about the age of eleven, remaining until about the age of fifteen. During this period their education runs parallel with that of the *collège*, though pupils of the latter establishment continue their course until about the age of seventeen. In practice, the pupils of both schools in many towns attend the same classes and are taught by the same teachers in the same building during the period in which the course of instruction is common to both. There is a similar joint arrangement between the *collèges* and the *écoles professionnelles* (higher elementary schools giving a training for trades) in towns where the latter establishments exist. As the *collège* belongs to the secondary educational system proper, its pupils pay fees. Instruction in the higher elementary school, on the other hand, is free. There has arisen, therefore, the anomaly of "paying pupils" sitting in the same classes by the side of "non-paying pupils" to receive identical instruction. The money voted in this year's budget will be used to abolish fees in these joint classes. It should be pointed out that, being restricted to this purpose, it does not make education at the *collège* free through the whole course up to the *baccalauréat*. In the final two classes, attended only by pupils of the *collège* itself, fees will for the present continue to be paid. The important fact remains that, so far as these institutions are concerned, secondary education is made free over a considerable period of the school career. The reform does not, of course, apply to the great *lycées* at all.

Limited as it is at the beginning, there is a good deal of likelihood that the reform will spread. It is, indeed, already doing so. During the budget debates it was contemplated that it would be applicable to fifty-six *collèges*. Since then the number has grown to seventy-seven. Wherever a higher elementary school becomes attached to the *collège* of a small provincial town, the municipality will be entitled to ask that the new rule shall be put in force. There is, however, a limit to the possibility of extension of the reform in this way. The multiplication of higher elementary schools is limited by the amount of money allocated in the budget for these institutions. On the other hand, it is evident that pressure will be put on the ministry of education to continue along the path which it has begun to tread. It will be argued that, in insisting on fees for one part of the *collège* course while the rest is free, the ministry has created a fresh anomaly. There is something illogical, also, in giving a measure of free secondary education to one town while denying it to another merely because it has not a higher elementary school attached to its *collège*.

If the whole of secondary education were made free, the direct and immediate cost to the state would be 58,000,000 francs a year, the amount of the fees at present paid by the 155,000 boys and girls who attend secondary schools of

every kind. In the present condition of French finance it is difficult to foresee the time when the Treasury will be in a position to find such a large sum. Perhaps M. Herriot, in arguing so earnestly in favor of the full reform which he hopes will eventually be carried out, was influenced by the circumstance that he was speaking a few months before a general election. There is no doubt, however, that, in the view of many public men and of administrators of the French educational system, the present reform is the beginning of a much larger one.

COMMENTS ON NEW YORK CITY HIGH SCHOOLS BY  
A GERMAN EDUCATOR

Theodore Huebner, of the James Monroe High School, New York City, has translated for the *Bulletin of High Points in the Work of the High Schools of New York City* a German pamphlet entitled, *Aus New York's Hoheren Schulen*. This pamphlet was prepared by Peter A. Silbermann, a Berlin educator, after visiting nine New York high schools.

Some extracts from the translation are as follows:

The fact that education is free does not suffice to explain the huge attendance of the high schools. . . . The American, who is so often denounced as materialistic, values higher education extraordinarily. . . . Democracy, which draws its leaders from no special caste, continually needs an aftergrowth of efficient, well-educated personalities.

The teachers almost as a whole impress one as being brisk and well bred. . . . The gentlemen are well dressed; the ladies wear fashionable and elegant clothes. . . . They are all serene, without a trace of nervousness or sourness, and their love for their work often approaches enthusiasm.

The pay of secondary teachers is not good, and the married men are therefore compelled to seek other means of income. . . . The teaching service is quite rigorous. . . . If the teachers nevertheless appear to be so alert and contented and in addition have the energy and the inclination to work in night schools, then it is really amazing. In fact, it is all the more astounding when one considers that most of them have to travel a distance and that riding in the fearfully crowded subway is extremely nerve-racking.

The solution lies in the peculiar relationship that prevails between the teacher and the students. He is less their superior than their older friend, companion, and helper. . . . He joyfully welcomes every expression of independent thought and action. . . . The discipline during the period is exemplary. . . . Everywhere there is the same order and attention. Cases of discipline [in the European sense] do not occur.

Under these circumstances teaching is less an exertion than a joy. No hostile opposition exists between the teacher and the students.

The supervision by an especially efficient colleague is not burdensome to the

individual teacher. . . . The chairman is just as glad to learn from one of his teachers as the latter from him. . . . It is a comradely co-operation for a common cause, full of cordiality and joy.

Excellent ventilation prevails. . . . Even in midwinter the windows are open. . . . From the very beginning the student's individuality is taken into consideration. This is difficult in mass instruction, but it is possible. . . . Democracy needs individuals who can think and act independently, not soldiers capable only of automatically obeying commands from above. . . . The individual traits of the student are a factor which the American school takes seriously.

Characteristic of American schools is the system of promotion by subject. . . . Class promotion is considered a waste of time and money.

The student who does not get along well in a subject has an opportunity during the study period of making up his deficiencies.

Exhaustive use is made of the blackboard. . . . The expert teacher knows how board work may enliven a lesson. In fact, there prevails throughout American schools the constant endeavor to make teaching live, to relate it to actual life.

Strong support is given the teaching by the co-operation of numerous clubs, one of which exists for almost every subject. . . . These are real live activities in which the pulse-beat of life can be felt, and they therefore give the young student joy despite the effort required of him. . . . In a certain sense he is engaged in creative work.

Before me lies a 400-page book, *Our City of New York*, written by hundreds of students. . . . What a wonderful method of introducing youth to civics, of arousing their interest for the public life of their community!

The principal part of education in the American high school takes place not during but outside the teaching period in the so-called extra-curriculum activities. Its goal is training for citizenship. . . . An opportunity must be given the student to develop the qualities of a good citizen, to practice good citizenship, and to find satisfaction in such activity. . . . The extra activities in all their various forms . . . present this opportunity. There is nothing artificial, nothing forced about these activities; they arise naturally from the spiritual needs of youth.

Youth educated in this way will not be lacking later on in the necessary initiative for civic life. . . . The young person does not have to conceal anything; every side of his personality, every ability, finds an opportunity for expression and development.

## RECENT GROWTH OF THE JUNIOR COLLEGE

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LEONARD V. KOOS  
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### SOURCE OF THE MATERIALS OF THE PRESENT SURVEY

One who reads at all widely on education frequently encounters conjectures as to the recent growth and the present status of the junior college. The estimates usually pertain to the number of units of this new organization in operation, their enrolment, and the like. Some of the estimates are wild indeed, and few, if any, are based on actual recent counts. If one is to predict the future organization of American education and the place of the junior college in it, it is desirable from time to time to take some kind of inventory of the movement. It is the purpose of this article to report simply and briefly on the recent growth and the present extent of the movement.

The materials reported have been drawn from two studies of the extent of the junior-college movement, one made for and during the year 1922<sup>1</sup> and the other for and during the year 1927. Thus, the data at hand apply to periods five years apart. In order to keep the data on comparable bases, the later study was made by methods as nearly identical with those used in the first study as possible. Essential elements in the procedures were (1) inquiries aiming to locate all junior colleges in operation and (2) inquiries to all junior colleges as to dates of establishment, enrolment by year and sex, auspices of control, etc. Inquiries of the first type were sent to all state departments of education, all state universities, and all junior colleges already on lists kept by the writer and secured in various ways. All three of these sources aided in the discovery of junior colleges recently organized. Wherever necessary to secure a response, second and third inquiries of the second type were sent to institutions not answering the first request. Even the third request did not elicit re-

<sup>1</sup> The findings of this earlier canvass were made available in chapter i of the writer's *The Junior-College Movement* (Ginn & Co., 1925) and *The Junior College* (University of Minnesota Press, 1924).

sponses from all institutions appealed to, although the number not making some kind of acknowledgment was very small. In cases of failure to respond, the institution was not included in the final list of junior colleges except where the writer had evidence through other avenues that it was operating as a junior college. For this and other reasons it may be assumed that what is being reported for both periods is *less* than a full count of junior colleges, although, in view of the methods used, the totals cannot be far from all such units in operation. Until we have some official agency to assemble the data, we shall never be able to report full counts of such units.

A few further explanatory comments are necessary for an adequate appreciation of the data here reported. The count for 1927 includes a number of junior-college units—eighteen, in fact—announced to begin operation at the opening of the school year 1927-28 or during this year. All others included in the report for 1927 reported students in one or both junior-college years during the school year 1926-27. Similarly, a small number of junior colleges reported to be in operation in 1922 did not begin work until the autumn of that year. No institution is included whose authorities indicated that they preferred *not* to be included in a list of junior colleges. Among those thus excluded from the count reported are a number of institutions offering four years of college work but approved for only two years of college work by the local university or other standardizing agency. From the list for 1927 were excluded a few institutions now giving only two years of college work and classifiable as junior colleges whose authorities look forward to early expansion to include the two remaining college years and therefore prefer not to have their institutions identified with junior colleges. On the other hand, not all institutions which have been included in the two counts and which offer one or two years of college work have had this work approved by a standardizing agency. This procedure may seem open to criticism but is justified by the absence to date, in certain states and in areas wider than states, of agencies to standardize junior colleges and even more by the fact that the extent of development of schools on other levels—for example, high schools and colleges—is often, and quite properly, measured without regard to standardization.

**FIVE-YEAR INCREASE IN NUMBER OF INSTITUTIONS  
AND IN ENROLMENT**

With the exception of the lower divisions of colleges and universities, which are not being considered here, the total number of junior colleges discovered for 1927 after the manner of inquiry described is 325 (Table I). This is well over a hundred more than were in operation during 1922.

*Public junior colleges.*—Of the whole number of junior colleges, almost one-third—105, to be exact—were public junior colleges, that is, parts of local public-school systems. For the most part, these units are maintained in connection with public high schools. There

TABLE I  
NUMBER OF JUNIOR COLLEGES OF EACH TYPE AND NUMBER OF  
STUDENTS ENROLLED IN 1922 AND 1927

TYPE OF UNIT	SCHOOLS			STUDENTS		
	Number in 1922	Number in 1927	Percentage of Increase	Number in 1922	Number in 1927	Percentage of Increase
Public.....	46	105	128	5,163	16,382	217
State.....	24	31	29	3,276	3,763	15
Private.....	137	189	38	7,682	15,485	102
All types...	207	325	57	16,121	35,630	121

was a total of forty-six such units in 1922; the number was therefore more than doubled during the half-decade (Fig. 1).

*State junior colleges.*—The junior colleges designated as state institutions number thirty-one, an increase of only seven since 1922. This is an exceedingly diverse group, including as it does seven units maintained as parts of normal schools or teachers' colleges, three as county schools supported mainly from state resources in a state in which the county is not a dominant educational unit, one as a branch of the state university, at least three as branches of the state college of agriculture and mechanic arts, and a number more or less independent of other educational institutions but under state control. It is significant to note that the number of junior colleges in normal schools and teachers' colleges dropped between 1922 and 1927 from eighteen to seven. This decrease represents a marked defection from the movement on the part of teacher-training institutions. It seems,

however, to be in harmony with a somewhat general instability and heterogeneity of the state type of junior college.

*Private junior colleges.*—The private junior colleges outnumber both the public junior colleges and the state junior colleges, 189 having been discovered during the progress of the more recent survey. This is an increase of 52, or 38 per cent. The term "private" represents, of course, a wide variety of types of control, ranging from pri-

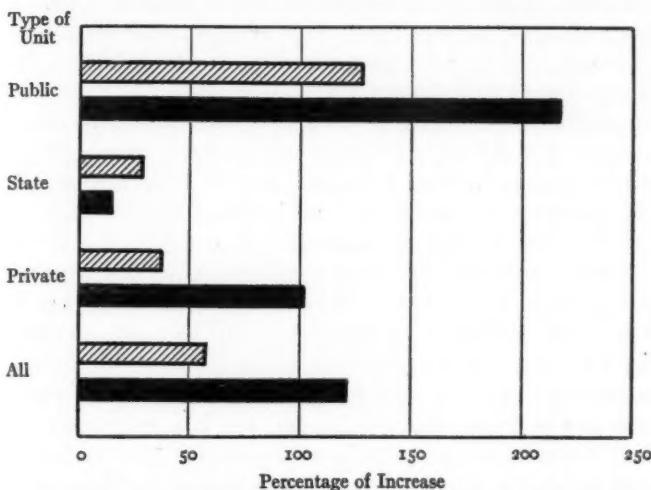


FIG. 1.—Percentage of increase from 1922 to 1927 in number of junior colleges of each type and in enrolment (shaded, increase in number of institutions; black, increase in enrolment).

vate-venture schools maintained for profit at the one extreme to units under complete denominational control at the other.

Reports on enrolment during 1926-27 are at hand for 284 of the 325 junior colleges of 1927. Obviously, such data are not available for the eighteen units beginning operation during the school year 1927-28. Of the remaining junior colleges for which data on enrolment were not reported, five are public units; seven are state units; and eleven are private units. Three of the state units not reporting could not distinguish between junior-college and teacher-training students. The full enrolment in the junior-college years only in the

284 units reporting for 1926-27 was 35,630, the equivalent of the enrolment in four or five large universities or in from 100 to 150 "small colleges." The enrolments in the three types of junior colleges were: public, 16,382; state, 3,763; and private, 15,485. Compared with the total enrolment in 1922, the total enrolment in 1926-27 represents an increase of 121 per cent. The increases for the three types of junior colleges were: public, 217 per cent; state, 15 per cent; private, 102 per cent. Judged by the increments both in number and in enrolment, the public junior college is more dynamic than the private junior college, and, in turn, the private junior college is more dynamic than the junior college on state foundations.

*Discontinuances.*—Some clue to forces at work within the movement should be found not only in the total number of junior colleges but also in the facts concerning discontinuance of junior-college units once in operation. A comparison of the complete lists for 1922 and 1927 shows thirty-six units in existence in 1922 not in existence in 1927—five of the public type, eleven of the state type, and twenty of the private type. Of the five public units discontinued, one was in effect lost to the movement by extension to four-year-college status; another was merged with a larger unit within the same system; and in the remaining three the work was dropped. One of the three public units in which the work was dropped was in a community too small to warrant the maintenance of a junior college; the reason given for the discontinuance of the other two units was "economy." Of the eleven discontinuances in the state group, all were in normal schools and teachers' colleges, and the giving-up of the junior college was in some way related to extension to four-year-college status. Of the twenty discontinuances among private junior colleges, eleven involved elimination of the junior-college work, in most instances perhaps because of debility; one unit was burned; and eight units experienced extension to four-year-college status. Thus, the largest factor of loss to the movement is upward extension, another factor being general weakness of the individual institutions concerned.

#### INCREASE IN SIZE OF JUNIOR COLLEGES

The growth and the status of the junior college are shown not merely by the number of institutions in existence and the facts on

gross enrolment but also by the enrolments in typical or average units. Certain measures of tendency as to size are presented in Table II and in Figure 2. These measures disclose evidence of nota-

TABLE II

MEDIAN ENROLMENT, RANGE OF ENROLMENTS OF THE MIDDLE 50 PER CENT, AND AVERAGE ENROLMENT OF EACH TYPE OF JUNIOR COLLEGE IN 1922 AND 1927

MEASURE	PUBLIC JUNIOR COLLEGES		STATE JUNIOR COLLEGES		PRIVATE JUNIOR COLLEGES		ALL JUNIOR COLLEGES	
	1922	1927	1922	1927	1922	1927	1922	1927
First quartile.....	39	49	28	73	28	36	28	41
Median.....	60	103	78	101	44	70	47	80
Third quartile.....	151	194	195	164	72	116	85	138
Average.....	143	188	150	157	61	90	89	125

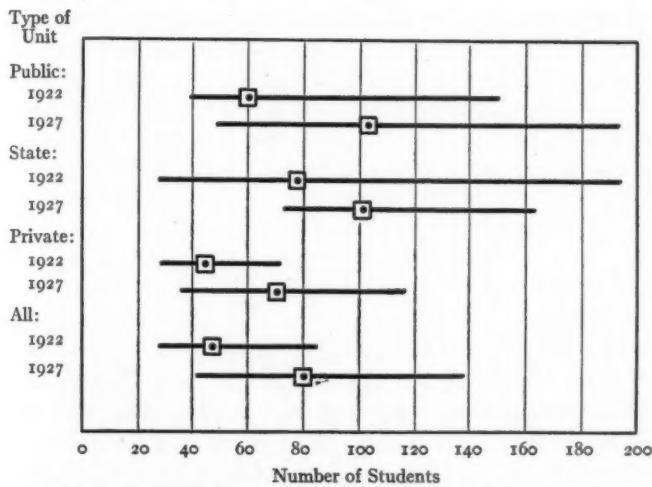


FIG. 2.—Median enrolment and range of enrolments of the middle 50 per cent of each type of junior college in 1922 and 1927. (The line represents the range of the middle 50 per cent; the square locates the median.)

ble growth not only for all junior colleges as a group but for each of the three types of institutions considered. This evidence is especially remarkable in view of the large number of new units, which might

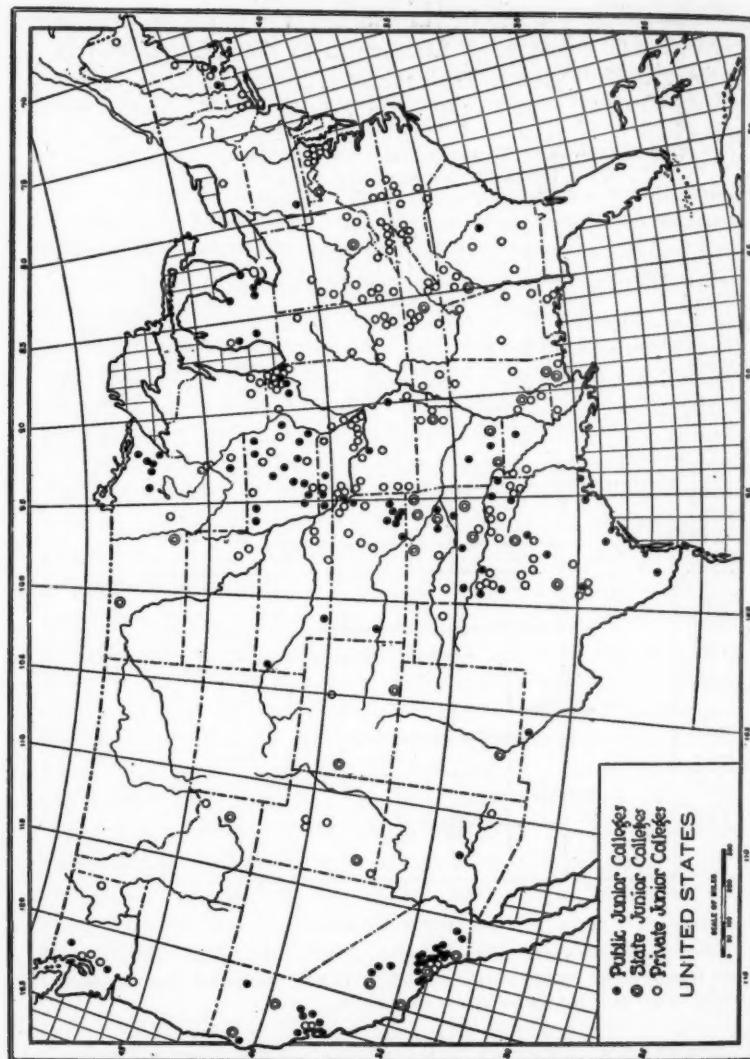


FIG. 3.—Geographic distribution of 325 junior colleges by types

tend naturally to be smaller than those of earlier establishment. Of the three types, the public junior colleges are the largest, the state junior colleges almost as large, and the private junior colleges considerably smaller than the other two types. The measures reported indicate also that many junior colleges of each type are small, especially when compared with the tentative minimum standard of 150 to 200 students proposed elsewhere by the writer.<sup>1</sup> There are, on the other hand, many junior colleges that can now qualify on such a standard, and the comparison of figures for 1922 and 1927 shows progress prophetic of further improvement in this respect.

#### DISTRIBUTION OF JUNIOR COLLEGES

The geographic distribution of the 325 junior colleges of 1927 is shown in Figure 3, an outline map of the United States in which the location of each institution is indicated by type. A major impression afforded by examination of this map is that junior colleges are rather generally distributed over the entire country. In fact, they are to be found in thirty-nine of the forty-eight states and in the District of Columbia. The nine states for which no examples of the new organization are reported are Vermont, New Hampshire, Rhode Island, Delaware, New Jersey, South Carolina, Montana, Wyoming, and Nevada—three New England states, two Middle Atlantic states, one southern state, and three sparsely settled western states. In 1922 there were eleven states without junior colleges.

A helpful basis of generalization on the distribution of junior colleges and on their development in the several sections of the country over the five-year period is afforded in Table III. Considering only the data for 1927, we may note that the Middle West leads in the number of public units, reporting more than one-half the total number of organizations of this type. It is followed in order by the West (almost all public units here being in California), the South, and the northeastern section. No section leads at all notably as to the number of units on state foundations, an interesting fact being the total absence of units of this type in the northeastern section. The South leads in the number of private units, almost one-half of all the organizations of this type being reported from this section. It is

<sup>1</sup> *The Junior-College Movement*, pp. 380-81. Boston: Ginn & Co., 1925.

followed by the Middle West and at a farther distance by the western and northeastern sections. When junior colleges of all types are considered, the Middle West and the South lead with approximately equal numbers; they are followed by the western and the northeastern sections.

The comparisons of data for 1922 and 1927 made possible in Table III show that, when all types of units are considered, the movement made large proportionate gains in all sections. For the most part, the growth of the three types of units in each of the sections is roughly consistent with the general increase. The more outstanding

TABLE III  
DISTRIBUTION BY SECTIONS OF THE COUNTRY OF THE THREE TYPES  
OF JUNIOR COLLEGES IN 1922 AND 1927

SECTION	PUBLIC JUNIOR COLLEGES		STATE JUNIOR COLLEGES		PRIVATE JUNIOR COLLEGES		ALL JUNIOR COLLEGES	
	1922	1927	1922	1927	1922	1927	1922	1927
New England and Middle								
Atlantic states.....	2	3	.....	.....	9	16	11	19
Southern states.....	1	18	3	12	69	90	73	120
Middle western states...	25	54	11	8	44	66	80	128
Western states.....	18	30	10	11	15	17	43	58
All sections.....	46	105	24	31	137	189	207	325

exceptions relate to public units in the South and to state units in the South and Middle West. The public junior colleges in the southern states increased from one, in El Paso, Texas, to eighteen, most of these also in Texas but with scattered units elsewhere. There was also a marked increase in state units in this section. The only decrease in number of units of any type was in the state units in the Middle West. The loss is accounted for by the discontinuance of junior colleges in the normal schools of Wisconsin and to some extent of other states, a loss partly offset by the establishment of certain state units in Oklahoma.

#### DATES OF ESTABLISHMENT OF JUNIOR COLLEGES

It was possible to obtain information concerning the year of establishment of junior-college work for 303 of the total of 325 units in operation in 1927. These data have been compiled cumulatively for

each type and for all types of junior colleges with the results shown in Figure 4. In interpreting the data presented, one should keep in mind the fact that they do not include junior colleges in operation

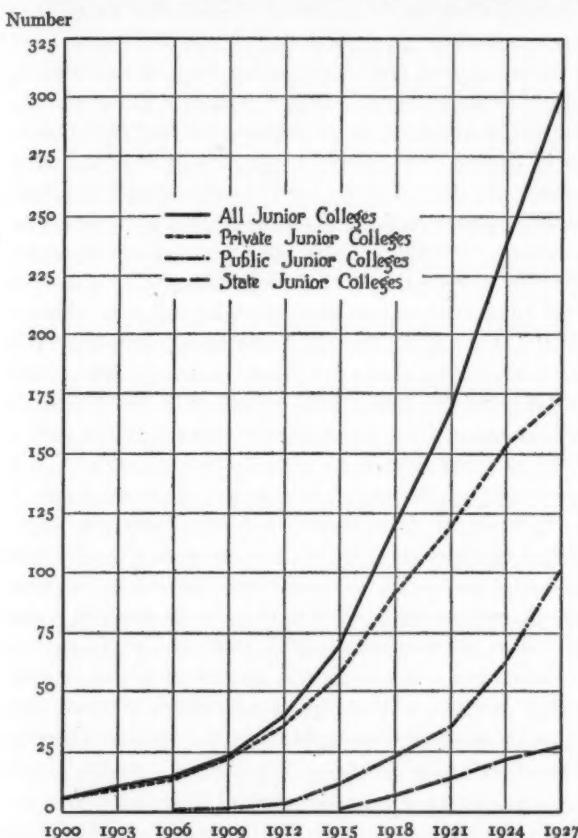


FIG. 4.—Number of junior colleges of each type in operation at each three-year interval from 1900 to 1927, inclusive.

some time during the full period represented but discontinued before the school year 1926-27. Units of the private type are shown to have appeared first on the educational scene, to have largely determined the growth of the movement as a whole over a period of almost fifteen

years, and to have outnumbered the other types throughout. The first examples of the public type made their appearance shortly after the opening of the century, but this type did not manifest rapid development until about 1914 and 1915. Since that time the rate of its growth has been an accelerated one. Units of the state type were the last to appear, and their increase has been slower than that of other types. Because Figure 4 does not include junior colleges discontinued before 1926, it cannot disclose the fact that the earliest examples of the state type were in operation in 1910 and 1911.

The curve shown in Figure 4 for all junior colleges indicates that *almost all the growth of these institutions has taken place during the past fifteen or twenty years*. In fact, only 38 of the 303 units represented in this figure were in operation in 1912, only fifteen years ago. It would be difficult to overemphasize the importance of a development of this rapidity. One way of stressing it may be by comparison with the growth and the present status of colleges and universities. There are listed annually in the *Educational Directory* of the United States Bureau of Education from six hundred to seven hundred such higher institutions, not including state normal schools, teachers' colleges, and junior colleges. This number includes, of course, many feeble four-year institutions. It represents a development extending over the period of approximately three centuries since the establishment of Harvard College in 1638. *For this new organization, the junior college, virtually within a period of from fifteen to twenty years to increase the count of its representatives to half the total number of four-year colleges and universities is extraordinary.* In view of this remarkable development, it is essential that the junior college be taken seriously into account by all those who would shape the destinies of secondary and higher education in America.

## ARE HIGH-SCHOOL PUPILS QUALIFIED TO CHOOSE THEIR OWN MAGAZINE READING?

HOMER F. BARNES  
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From the office of the editor in chief of the *Literary Digest* I recently received a letter marked "Personal." It was an unusually interesting and convincing letter, urging me to "join with the twenty-five thousand other teachers who have long been using the *Literary Digest* to lead their half-million boys and girls to read it regularly as part of their school work." The letter emphasized the Weekly Lesson Plans prepared by expert teachers and urged me to telegraph my order at once at the publisher's expense.

As a regular subscriber to this magazine and as one who has used it for some time in classroom work, I realize how valuable it is as a means of knowing about current events, of reading various press comments, of studying both sides of political and civil questions, and of helping to create oral discussion and purposive writing. However, when it is suggested that this magazine or any other paper or magazine be used "regularly" in the English classroom, I feel a distinct hesitancy. I doubt very much whether I am capable of deciding which magazine I should use and whether it is right for me to suggest that my pupils confine their periodical reading to one publication.

Two hundred periodicals are reported by the American News Company to be on their stands today, and the opportunity of studying with intelligent boys and girls just what some of these magazines are and what they stand for is far more important than giving them a view of only one magazine. The pupils leaving our high schools are going to select several of these magazines for their leisure reading, but, if they are not given an opportunity to know the values and the methods of these magazines, they will not be able to make wise choices. One must know something of the nature and interest of magazines before one can make any selection at all. I find very few pupils in the senior high school who know any difference between

such publications as the *New Republic*, the *Century Magazine*, *Time*, and *Harper's Magazine*.

Without a knowledge of these magazines, pupils cannot be expected to be interested in them any more than one who has not been introduced to Shakespeare or Browning can be expected to be interested in those writers. Once introduced to these magazines, however, they see what important contacts they have missed. They realize that the magazines are not beyond them and that they contain discussions of vast and immediate interest.

✓ I propose a systematic study of a dozen or more of the most widely known magazines with a view to giving pupils an acquaintance with their contents, quality, points of view, etc. This would eliminate to a large extent the hasty, thoughtless purchase of a magazine with a flashy cover. More and more copies of magazines are being sold at news stands to men and women hurrying to and from work. They snatch them as they run. Of course, the publishers must take thought to catch the reader's eye and bedazzle his mind quickly. Although it is true that the nature of the contents of *Harper's Magazine* changed at just about the same time its cover changed, certainly the flashy red which it now wears had something to do with the sudden jump from 20,000 to 40,000 in its news-stand sale. The total circulation of this magazine increased from 65,000 to 103,000 within four months. The *Forum*, which had a circulation of 2,000 in 1923, now has a circulation of more than 63,000; and the *American Mercury*, born in January, 1924, had a circulation of more than 60,000 by January, 1926.

Cheaper magazines have grown even more rapidly, and the social importance of systematic guidance in periodical reading is readily apparent when one views the growing menace of the cheap, sensational magazines.

From my point of view, the way to counteract the poor and to encourage the good is to make pupils acquainted with both poor and good and to let them see the difference. Pupils should be urged to select what to them seems of real value. They will often err, and it will devolve upon the teacher to demonstrate the value of what they have thrown aside, but it is the only way in which they can form the habit of making their own selections.

During the past year my class<sup>1</sup> in senior high school English voted to study and appraise several of the more widely known magazines with a view to learning more about the nature of the magazines, the types of people to which they appeal, the quality and the nature of the articles and stories, and even the advertisements. After mentioning a number of the best-known periodicals, the class voted to study at intervals of two weeks the following magazines: *American Mercury*, *Saturday Evening Post*, *Literary Digest*, *Harper's Magazine*, *American Magazine*, *Time*, *New Republic*, *Current History*, *Atlantic Monthly*, *National Geographic Magazine*, *Cosmopolitan*, *Century Magazine*, and *Snappy Stories*.

Almost all these magazines are provocative of thought and discussion, for the staid conservatives are now featuring articles picturing the busy life of progressive America. Articles on industrialism, feminism, politics, psychology, education, religion, and all sorts of world-affairs and public issues are found in almost every issue. The magazines are responsive to life. They present immediate and pressing problems, fascinating stories of struggle, achievement, and failure. No one magazine has a monopoly on such topics, but they all show variations in quality and in method of approach.

The *American Mercury* was voted the magazine to be studied first, and the class tried to discover Mr. Mencken's aim and what the paper represents. One of the pupils called attention to the original slogan of the *American Mercury*, "A Journal for the Civilized Minority," and started a discussion as to what Mr. Mencken meant by the word "civilized." Was his intolerance a mark of civilization? The pupils read the contents of the magazine with interest because some who knew a little about it called it a "knocker." They all wanted to find what things were attacked and how severely they were dealt with. That led to a discussion of the sales value of such attacks and whether or not the publishers could appeal to enough people to hope for a circulation large enough to pay good dividends.

Selections from some of the fifteen-minute papers written by the pupils will show their personal reactions after they were encouraged to state their views and to cite instances supporting them.

<sup>1</sup> As the Western Reserve Academy is a boys' preparatory school, the class was made up entirely of boys.

The *Mercury* is a valuable magazine if it is read with an understanding of what it stands for and a knowledge of who does its writing. It is worth while if only because it presents an odd side of the question and thus makes people think.

Breaking away from conventionalism is, in my opinion, a good thing if not carried too far. Mencken has based his terrific ridicules on obviously insignificant subjects. He has taken the chaff of the land and has written pages of bristling satire on it. . . . Breaking down is only one step toward building up.

With the exception of a few stories, the *Mercury* is full of a lot of bunk and is monotonous.

This same no-good-in-the-world gets mighty boring unless there is something to balance this excessive severity. . . . I can imagine the editor as a gouty old customer who has dyspepsia.

This magazine is well written, every bit of it. It is full of wholesome vigor.

I get quite a kick out of the *Mercury*'s editorials and the "Americana." . . . Mr. Mencken writes cynical and satirical things about everything in general; he is very interesting, refreshing, and even amusing.

When a person is seen reading the *Mercury*, it puts him in a class with the other "iconoclasts," which I rather like, at least at my present age.

There is one distinct section of the *American Mercury* which I prefer over any other section and which I always read first. This is the advertising section, which always presents the best and latest books on the market.

The *Mercury* shows the weak and ridiculous side of democratic America. The Babbittry and bourgeoisie are held up to ridicule for their simple-minded credulity and for their aversion to thinking anything that is different from the prevailing customs. The masses are considered rubber stamps.

The *Mercury* is intended to be a magazine for the freethinker and hater of shams. To such I believe it has a wide appeal, but to a larger class it is a means of flattering themselves that they are of the intellectual set that is ahead of the times.

The *Mercury* is essentially for people with some gray matter above their ears; its matter is distinctly of a destructive nature but scintillates with truth. . . . The only truly just criticism that can be brought against this worthy publication is its monotony.

Some of the writers are perhaps a little vague in some of their ideas and leave the impression of acting like bad little boys trying to shock people along the street.

These extracts show various reactions to the magazine, but they all show reactions and opinions, and these opinions are based on a knowledge of the contents of the magazine. The pupils analyzed the

*American Mercury* and discovered principally through their own initiative just what it actually is. It is not for us English teachers to decide what our pupils should read but rather for us to let them decide for themselves after they have studied the qualities of the magazine and are able to form their own judgments, even though these judgments are entirely contrary to our own. Magazines, as all works of literature, must be judged on the basis of their merits and must not be "sold" by the teachers.

The *Century Magazine* was studied next. The majority opinion here was, as one boy expressed it, that it is "a magazine that appeals to people who desire refined, unostentatious, and intelligent reading matter."

The other magazines mentioned followed in order and were analyzed and criticized by the pupils. After those of generally accepted good standard were studied, *Snappy Stories*, which many teachers would not have considered for classroom study, was read. However, believing in the clarity and honesty of judgment of the pupils, I ordered copies. My heart sank when I saw the brilliantly colored cover, which had a rather suggestive caption and showed an appealing bathing beauty sitting on a wine glass. I allowed the boys to read the magazine at will, however, so that they could arrive at the truth concerning it.

Although the members of the class were always encouraged to have their own opinions and to express them honestly even when they were known to be in conflict with mine and although very few pupils hesitated to give their opinions, I wanted to make certain that they would feel entirely free to present their own ideas in expressing their judgment of this magazine. Accordingly, I told them that I was especially eager to get the truth concerning their reactions and that their criticisms would not be graded.

If anyone is concerned about the tastes and judgments of the modern youth of high-school age, let him read a few of the following excerpts from comments on *Snappy Stories*.

It would be impossible to compare this magazine with others we have read. One can easily see from the style and sentence structure that the authors are lacking in much. Each and every story has the same sickening theme, and there is nothing original in it. As compared with the *Atlantic Monthly*, it is impossible!

*Snappy Stories* is nothing but a lot of rot with a sexual looking cover to attract people whose minds are seeking trash. The study of this magazine is justifiable so that we will know what kind of magazines *not* to read. I used to read it myself but not any more.

Its style is childish. The writers' main thoughts seem to be to cram as much slang and hard-boiled reading as possible into each story. A wrong idea of life is given in the magazine.

The style is, of course, simple and obvious. I do not think the sentence structure or actual grammar is poor, but the material is "all the blah," to use an expression fitting to this magazine.

Variety is lacking. Each story tells practically the same tale. . . . It presents sex-appeal stories to people who are not of the highest intellect.

Poor paper, poor printing, poor advertisements, pages not numbered, not very interesting.

When contrasted with the *Century*, *Snappy Stories* is a dry uninteresting magazine. Really to enjoy a magazine I must get something to think about after reading it.

I think it was all right to study this magazine because we can now really see how worthless it is in comparison with others we have studied. We also get other people's viewpoints of this magazine here in class.

I'll wager more than one fellow is definitely decided against this stuff. Contrasted with the other magazines we have studied, it is pitiful.

The other magazines we have studied deal more with interesting affairs or events of the day; this could never be used to gain knowledge of anything.

Although I felt that the pupils were enjoying the magazine study and were forming their own opinions based on study and observation, I wanted to make certain that such was the case. Accordingly, the last week of school I asked that each member of the class state very frankly his opinion concerning the magazine study and told the pupils that I would not look at the papers until after school had closed. As they were Seniors, I would never have them in my classes again. I thought that my instructions would assure frank and truthful opinions. The comments were certainly frank, and it is my belief in their truth which causes me to quote some of them.

Many of the magazines had formerly impressed me as publications that I would have no understanding of. In short, I believed them to be over my head. I soon found out they were not beyond me but contained discussions of many things I was interested in.

I have learned to read and understand certain magazines in which I had no interest before.

This study has given me a great deal wider knowledge of our magazines and has helped me to decide what ones I shall really enjoy reading when they are not assigned.

It has taught me the different kinds of magazines and the class of people to which each magazine appeals.

This study has made me appreciate the variety of modern magazines and has acquainted me with a group of magazines, such as *Current History* and *American Mercury*, which, up to this time, I was not familiar with.

We learned which magazines were the best. For instance, we studied *Snappy Stories*, and not one in the class thought that it contained anything worth thinking of. On the other hand, everyone enjoyed the *American Magazine*, *Century*, etc., and I really think they got something to think of out of the articles.

The discussion of magazines has undoubtedly helped the class a great deal in recognizing the importance and value of magazines. It has helped them to make a good choice of the magazines they select to read.

Some of these magazines I had never read before. . . . Reading them and reviewing them has made it possible for me to pick the kind I want when I'm on a train or have a few minutes of leisure. I now know which magazine to pick to get a radical point of view or a conservative point of view, and I can form my own judgments more soundly by knowing that.

The list of magazines which we studied this year was fairly representative and introduced me to more than one with which I was unacquainted.

Unless a person has studied types and qualities of magazines, he feels a stranger to those that chance has not led him to buy. . . . The high-school pupil leaves the study of the standard English course behind him with his graduation and as often as not turns to poor writings for his reading and enjoyment because of lack of taste developed by his own choosing.

Some of the magazines we have read I would never have thought of looking at before; but now, after reading them and seeing what they contain, I often buy them.

All but one of the twenty boys who studied the various magazines said that they had found their study interesting and broadening. Seventeen were glad to be introduced to magazines which before had been only names. Twelve changed their minds about such magazines as the *Atlantic Monthly* and *Harper's Magazine* and decided that they are not too "highbrow." The entire class joined in condemning the cheaper magazines and voted that all such studied in class be put into the scrap basket so that they would not be passed around the school for younger pupils to read.

It is not the purpose of this article to maintain that magazine study is a panacea for all the ills English-teaching is heir to, but are not our high schools failing to take advantage of one of the most important and influential agents in the country if they neglect the magazines? Our schools should prepare boys and girls to live, to meet everyday needs, and to assume social responsibilities. Our magazines offer opportunities for the development of pupils both individually and socially. The method suggested is not one of spoon-feeding but one calling for exacting demands in both reading and judgment. It helps to create an interest in present-day life and literature and encourages a wholesome attitude toward the discussion of modern social problems.

## OBSERVATIONS ON THE QUESTION OF GENERAL LANGUAGE

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There are some things ideal in theory which prove impractical in application. The general-language idea is one of these. Obviously, anyone who would discuss the pros or cons of such a course should have had abundant opportunity to observe it in operation on an adequately comprehensive scale and under circumstances sufficiently favorable to warrant reliable conclusions. For a year and a half the writer has been intimately identified with the organization and actual teaching of general language in one of the large junior high schools in California. The work was first offered during the school year 1925-26 in ten-week cycle classes to all pupils in the high seventh grade. It was abandoned the following year for financial reasons and resumed in the autumn of 1927 as an exploratory course for all eighth-grade pupils. In the latter case the classes met on alternate days for one semester, three times a week during the first half and twice a week during the second. The experiment involved approximately a thousand pupils and six teachers. It may be added that the course was introduced entirely on the initiative of the foreign-language department and undertaken with more than usual enthusiasm by both pupils and teachers. The indifferent success which the experiment met was therefore due primarily to deficiencies inherent in the course itself rather than to any prejudices or preconceived ideas on the part of the teachers respecting its ultimate value or expediency.

The objectives of the work, derived from a careful study of current literature in the field, were as follows:

i. Prognostic-guidance aims

- a) To acquaint pupils with the methods and techniques of foreign-language study

- b) To provide adequate opportunity for the exercise of the pupils' linguistic abilities with a view to discovering and evaluating these abilities
- c) To impart a knowledge of the relative values of foreign languages in relation to vocational pursuits and geographical distribution of population
- d) To provide an adequate basis in experience for the intelligent choice of a foreign language for special study
- e) To guide pupils, on the basis of their manifest interests and aptitudes, in the choice or avoidance of subsequent language work
- f) To reduce in the foregoing ways the pupil mortality in regular language classes

2. Avocational-cultural aims
  - a) To stimulate an interest in language study as an avocational activity
  - b) To develop a concept of the dynamic, composite, and evolutionary character of language
  - c) To stimulate a greater interest in the mother-tongue and appreciation of it
  - d) To develop a concept of foreign languages as cultural media of communication rather than as vulgar lingoes
3. Social-civic aim
  - a) To promote international understanding and good will by arousing an interest in the linguistic culture of foreign people and appreciation of this culture
4. Scholastic-academic aims
  - a) To teach such of the rudiments of the principal foreign languages as will provide a suitable introduction to the subsequent special study of any or all of them
  - b) To teach such items of each foreign language as find frequent occurrence in the mother-tongue

In the pursuance of these objectives the first three weeks of the course were devoted to a general consideration of the origin, nature, and history of language and to a brief study of the relation of the principal foreign languages to one another and to the classic tongues. Reports on pertinent subjects were required of the more capable

pupils, and collateral reading was occasionally assigned in *The Outline of History* by H. G. Wells, *The Story of Mankind* by Hendrik Van Loon, *The Cave Twins* by Lucy Fitch Perkins, and similar references. Following this introductory work, the study of Latin, Spanish, French, and German, in order, was begun. The regular class work was supplemented by an inquiry into the customs and places of interest of each country. Special emphasis was placed on the use of *realia*, and the pupils were encouraged to bring foreign stamps, coins, postcards, pictures, phonograph records, and periodicals to class. Interested parents and patrons were also invited to tell of their experiences abroad. Even steamship and railroad circulars were exhibited, the general-language rooms becoming in many instances the most decorated classrooms in the building. The purpose of this was obviously to create atmosphere and to stimulate interest in the subject.

On the academic side the pupils were taught selected items of subject matter in each language. In Latin considerable attention was given to the study of cases and to word-building. The numbers to a hundred, the days of the week, and the meanings of Latin expressions and abbreviations of common occurrence in English were also taught. Little attention, however, was given to reading. In the modern languages the chief subjects of instruction were the greetings and expressions of courtesy; the sounds of the letters and principal diphthongs; the elementary facts of gender, number, accent, and agreement of adjectives; and the numbers, the months, and the days of the week. During the second half of the course considerable emphasis was placed on oral reading, conversation, and comparative word study.

From the foregoing exposition it would seem that the work in general language should have been singularly successful. That this was not the case may have been due in part to entirely remediable circumstances. The experience of the writer and his colleagues clearly indicates that language classes should never be scheduled for alternate days of the week. The facts of language, depending largely on memory for retention and mastery, are too readily forgotten to permit of intermittent class sessions. Unless the pupils meet daily, at least one-fourth of the teaching time is lost in review, and the

progress of the class is materially checked. It is desirable also that the pupils be placed in ability groups. The fact that the course is primarily exploratory would seem to make ability grouping an unnecessary prerequisite, but actual experience demonstrates that such grouping is as essential for efficient work in general language as for efficient work in the established academic subjects. Unless some kind of classification is provided, the work either becomes boresome to the superior pupils or passes entirely beyond the comprehension of the inferior pupils, giving rise to innumerable instructional problems. Finally, it is always preferable that the course continue throughout the semester and that the credit given for it be the same as that given for the major studies. Ten weeks are scarcely adequate to attain the objectives of the course, and it is very doubtful whether the work can be justified unless the objectives are more or less fully realized. Establishing the work on an equal footing with the major studies, on the other hand, is imperative if proper attitudes toward it are to be developed. To many pupils the importance of a subject is in direct proportion to the credit assigned to it or to the prominence which it enjoys in the curriculum, and this impression reacts not only on the pupils' general attitude toward the subject but also on their very habits of attention, deportment, and industry in class.

The real difficulties of general language, however, arise from deficiencies inherent in the course itself rather than from such extraneous and easily remedied conditions. The most serious criticism which can be made of the work is that it fails satisfactorily to achieve its paramount objective, namely, the exploratory-guidance aim. This objective obviously has two aspects. It implies guidance of pupils in their choice or avoidance of language work and guidance of pupils in their selection of languages for special study. In both respects the course is of only incidental value. As its name indicates, the course includes elements from each of the principal foreign tongues. If material from such numerous sources is to be presented in so short a time as ten weeks or even a semester, it is readily evident that only the simplest and most rudimentary facts of each can be taught. Those who are acquainted with the teaching process know that the technique of both study and instruction is quite different in the introductory period from that prevailing in the more

advanced stages. This means that pupils are never thoroughly familiarized with the actual methods of language study and are not infrequently impressed with exaggerated ideas regarding its ease or difficulty.

The pupils' preferences are, moreover, markedly affected by psychological factors entirely removed from the intrinsic worth of the subject of instruction. Many pupils favor the first language taught because it seems the most interesting. This impression is obviously the result of a common psychological phenomenon to which children and even adults are readily susceptible. It arises from the fact that the language offered first is always the most novel and consequently seems more interesting than those following, especially the last, from which the fascination of the new has been gradually worn off. Even the opposite effect is occasionally observed. The first language is often difficult for pupils slow in adjusting themselves to new materials and to new methods of work. To them each successive language seems easier than the one preceding because of the greater facility which they have acquired in the technique of study. Their choice is naturally inclined to favor the last language taught.

The personality, special abilities, and interests of the instructors also influence pupil preference. It is very exceptional for one teacher to possess equal interest or facility in all the modern tongues. His best teaching always occurs in the subject of his own first choice not only because of his superior command of the materials of his specialty but also because of the greater resources at his disposal in enthusiasm and experience. In consequence, the interests of the pupils are attracted to those of the teachers. Preferences, like prejudices, are, among the immature, far more often the product of social contact than of rational decision. This difficulty might be partly overcome by scheduling all classes for the same hour. Such an arrangement would permit of the rotation of teachers from class to class, enabling each to give instruction only in his specialty. This plan, however, involves two obvious difficulties aside from the administrative problem which it at once creates: it is likely to set up undesirable types of competition among members of the language department, and it fails entirely to eliminate the personality factor

as a determining influence in pupil choice. Pupil choice would be conditioned, as before, as much by the personality and methods of the teachers as by the intrinsic worth of their subjects of instruction. It is well to point out also that the choice of pupils is often affected by factors quite beyond the control of the classroom. The convictions of parents and the prevalence or popularity of particular languages in the vicinity exercise an overwhelming influence. Finally, the vocational ambitions of seventh- and eighth-grade pupils are far too variable and uncertain to be utilized as sole bases for intelligent counsel. For these reasons the directive function of general language is of doubtful efficacy in so far as it pertains to the guidance of pupils in their choice of languages for special study. In the fulfilment of its prognostic function—that is, selecting pupils for subsequent language work—the course is somewhat more successful. It is not difficult for the experienced teacher to detect the presence or absence of linguistic ability in his pupils, and this power of analysis and prognosis he is enabled to employ to advantage in dealing with general-language groups. It must be added, however, that exposure to four or five languages is by no means necessary for the purposes of prognostication. Any one of the modern tongues will adequately serve this end. It is always a question, moreover, whether some other means of prognosis—for example, prognostic tests or a weighted grade-point average combined with the intelligence quotient—would not provide an equally reliable and more economical index of linguistic aptitude.<sup>1</sup>

The most effective outcomes of general-language work are its contributions toward the social-civic objectives. The course succeeds commendably in arousing interest in language study and in developing a more appreciative attitude toward foreign peoples. One important observation must be made at this point, however, which is usually overlooked by the proponents of the course. It is that these objectives are not realized from the study of the languages themselves. The brief time devoted to each is far from sufficient to render any of them efficacious media for the communication of cultural interests, ideals, or attitudes. Everyone knows that it requires

<sup>1</sup> This problem is at present the subject of scientific investigation by the writer.

many months of patient effort to derive such benefits from language study. These aims are attained almost entirely through the collateral activities of the classes, such as reports on the customs and arts of foreign peoples and the study of pictures, stamps, coins, and music of foreign countries, which always figure prominently in the class work. While these activities may very legitimately be included in a general-language program, they are merely a duplication of what is already being done in every well-conducted class in the social sciences, English, art, or music. Indeed, it is by no means irrational to maintain that international amity can be promoted more effectively by all the subjects of the curriculum focused on this ideal than by any brief course approaching the objective only from the language standpoint.

These observations have led the writer to recommend the replacement of the work with a system of introductory courses in the modern languages. According to this plan, the study of English grammar in the seventh grade is to be somewhat intensified to prepare a more suitable foundation for foreign-language work. It has often been remarked that the pupil learns more grammar in his language classes than in his study of English. Not infrequently language pupils are confronted with grammatical technicalities long before they are introduced to them in the mother-tongue. This lack of preparation in the fundamentals of English has always been a source of difficulty to both pupils and teachers, for grammar, no matter what the method of instruction, enters into almost every phase of language work.<sup>1</sup> A more intensive consideration of the elements of English in the seventh grade should effectively relieve this difficulty.

At the beginning of the eighth grade the pupils are to be permitted to elect, under the guidance of the school counselors and advisory teachers, one of the languages offered in the curriculum. The first semester of each language will be in the nature of an introductory exploratory course. Two or three weeks will be devoted to a pre-

<sup>1</sup> George A. Rice, "An Analysis of the Classroom Practices of 210 Teachers of Modern Foreign Language," *California Quarterly of Secondary Education*, II (June, 1927), 283-89.

liminary consideration of the nature and history of language, to a brief inquiry into the customs, history, and geography of the country to which the particular language pertains, and to a general survey of its contributions to the world's scientific, artistic, and linguistic culture. Following this introductory work the pupils are to be given a thorough course, such as is regularly offered in beginning language classes. No failing marks will be given at the end of the semester, but pupils exhibiting marked deficiencies in either aptitude or interest will be required to drop the work. For the remainder the continuance of the study will be optional, full credit for the semester being given whether the course is continued or not. Those who choose to follow up the language will then enter upon their second semester of study instead of beginning practically all over again, as under the general-language plan. The obvious advantage of this arrangement is that it retains the most desirable feature of the general-language course—the exploratory-prognostic function—while eliminating its principal defect—the additional expense and administrative difficulties involved. Finally, for the linguistically gifted pupils it results in a vast saving of time in permitting them to begin at once upon the language of their choice and to continue this language without interruption or unnecessary repetition.

The general efficacy of this plan cannot, of course, be finally established until after a more or less thorough trial in actual application. From the standpoint of practicability, however, it bids fair to be more successful than is the present work in general language. With respect to the latter, it would by no means be justifiable to maintain that the course is entirely unsuccessful. Success, like failure, is a purely relative term, depending for its exact significance on the criterion of evaluation employed. It is merely that the work in the present instance did not yield results sufficiently great in the estimation of its sponsors to justify the time, expense, and effort involved. To those, therefore, not as yet thoroughly convinced as to the feasibility of the course who may be contemplating its introduction into the curriculum, the following suggestions, based on tried experience, are offered in conclusion as conditions indispensable to the most favorable administration of the course for a maximum achievement of results.

## SUGGESTIONS ON ORGANIZATION

1. Continuance of the course for a minimum of one semester.
2. Daily class sessions.
3. Ability grouping of pupils.
4. All classes scheduled for the same hour to facilitate Suggestion 5.
5. Rotation of teachers from class to class to enable each to give instruction in his specialty.
6. Introduction of the course not later than the eighth grade.
7. Establishment of the course on an equal basis with the major academic subjects.
8. Inclusion of only the languages in which competent instruction can be assured.
9. Instruction in preferably three, not more than four, languages in a semester course.

## SUGGESTIONS ON INSTRUCTIONAL PROCEDURE

1. Major emphasis on the languages actually offered in the curriculum.
2. Employment, so far as possible, of the methods of instruction actually to be encountered in the regular language classes.
3. Instruction in diverse items of subject matter in every language rather than in similar items in all languages.
4. Extensive use of realia.
5. Due emphasis on collateral activities but not at the expense of thorough work in the subject of instruction.

## A COMPARATIVE STUDY OF THE EFFECTIVENESS OF LABORATORY EXERCISES IN HIGH-SCHOOL ZOOLOGY WITH AND WITHOUT DRAWINGS

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The process of drawing is much used as a form of laboratory procedure. The time consumed in the production of drawings reaches its maximum in the biological sciences, where it often forms the major part of the laboratory procedure. A critical comparison of the drawings of any class will demonstrate the fact that many pupils encounter great difficulty in making the required drawings. As a result, many pupils are discouraged and discontinue their work in the field of science. This widespread use of a teaching device which consumes a great deal of time and fails to meet the needs of individual pupils in many cases raises an important problem.

Two kinds of drawings are commonly used in high-school zoölogy laboratory exercises, namely, representative drawings and analytical drawings. An example of a representative drawing is a drawing of a fish as seen from one side. In this case the pupil attempts to make his drawing look as much like the specimen as possible.

The drawing of the cross-section of an earthworm represents an analytical drawing. In this case the pupil does not attempt to make his drawing look like the specimen but attempts to show the relative position of the various structures. The pupil must analyze the relation of the various parts of the specimen in order to make a satisfactory analytical drawing.

The study here reported was limited to representative drawings. An examination of several laboratory manuals revealed the fact that approximately 85 per cent of the suggested drawings could be classified as "representative."

A survey was made of the educational literature in order to determine the values claimed for drawings. This survey included the

opinions of university professors and high-school teachers. The values claimed for drawings were analyzed and reduced to two general values: (1) aids the pupil in making analytical observations and (2) aids the pupil in remembering observations. It was the purpose of the study to test these claims.

Equivalent groups were selected on the basis of intelligence. The Otis Self-Administering Test of Mental Ability, Higher Examination, Form A, and the Terman Group Test of Mental Ability, Form A, were used. Each pupil took both tests. An average mental age was obtained for each pupil by computing the mental age from the score made on each test and averaging the results. The intelligence quotient of each pupil was computed from the average mental age.

The pupils were paired on the basis of their intelligence quotients. A pupil in one group was paired with a pupil in the other group having a similar intelligence quotient. In this way two groups of thirty-one pupils each were obtained having similar averages and variabilities. The average intelligence quotient of Class A was 104.12 with a standard deviation of 8.52. The average intelligence quotient of Class B was 104.16 with a standard deviation of 9.02.

The pupils were members of the writer's zoölogy classes in the Austin High School, Chicago, and were studying their first semester of zoölogy.

The two groups were also equated on the basis of the experimental trait under consideration in this study. This was accomplished by giving both groups a laboratory exercise involving the construction of drawings. At the end of sixty minutes the pupils were given an objective test covering the more important points of the laboratory exercise.

The total average score for Class A was 16.1 with a standard deviation of 3.99. The total average score for Class B was 15.0 with a standard deviation of 3.94. There was a difference of 1.1 points in the total average score in favor of Class A. In order to determine whether this difference was really significant, the experimental coefficient<sup>2</sup> was computed. This coefficient was found to be .39. Thus,

<sup>2</sup> William A. McCall, *How To Measure in Education*, p. 404. New York: Macmillan Co., 1922.

the difference of 1.1 points is only .39 as large as it should be in order for one to be practically certain that it is significant.

In order to determine the reliability of the objective test used in equating the two groups, the test was given twice to a class in zoölogy not concerned in this study. A few days elapsed between tests. The reliability coefficient was .76, as computed by the Pearson product-moment method with a probable error of .048.

Fourteen laboratory exercises<sup>1</sup> in zoölogy were prepared for the working-out of this experiment. Exercises were selected which could conveniently be given within a sixty-minute period. Care was taken to select exercises which would not require drawings that were either too complicated or too simple. The exercises used were adaptable for class work with or without drawings. The fourteen exercises were representative of approximately five months of work in zoölogy.

Each laboratory exercise consisted of two parts. Part I, the direction sheet, told the pupil what to do. Directions were given for the construction of drawings or for the location of structures on specimens. Fifteen supplementary questions were given on the direction sheet. When a pupil had finished his other work, he answered as many of the supplementary questions as he had time for.

Part II consisted in an objective test based on the laboratory exercise. The objective tests were designed to measure both memory and analysis. The memory test dealt with structures which the pupil labeled on his drawing. These structures were listed on the mimeographed sheet of directions. The pupils who did not make drawings located the structures on the specimen. The object was to determine whether the construction of a drawing and the labeling of certain structures caused the pupil to remember those structures better.

The analysis test was designed to measure comparisons and analytical observations which the pupil might make during the laboratory period. This test measured memory to some extent, but it also discovered whether the pupil had made careful analyses of the specimen that he was studying. The object was to determine whether

<sup>1</sup> The laboratory exercises and the complete tables of results are presented in "A Comparative Study of the Effectiveness of Laboratory Exercises in High-School Zoölogy with and without Drawings." Unpublished Master's thesis, Northwestern University, 1927.

the construction of drawings caused the pupil to be more observing and to make better comparisons.

Each objective test consisted of about ten questions of memory material and ten questions of analysis material. The completion test was used for testing memory, and the single-choice recognition type was used for testing analysis.

The tests were scored on the basis of the number of correct answers. The scores on memory and analysis were kept separate all through the fourteen exercises and were averaged for the final summary.

When the class assembled, each pupil was given a direction sheet. Following the directions, each pupil made a drawing of the specimen and labeled certain structures or merely located the structures on the specimen. After the drawing had been made or the structures located, the pupil answered as many of the supplementary questions as he had time for.

Sixty minutes was allowed for this part of the laboratory exercise. This time was kept constant throughout the entire experiment. At the end of the sixty minutes the papers were collected, and the objective tests were distributed. Fifteen minutes was allowed for the objective tests throughout the experiment.

The tests given at the end of the class period tested immediate retention. Objective tests made up of questions which had previously been used were given from four to six weeks after the completion of the laboratory exercises. In these tests also a distinction was made between memory material and analysis material. These tests measured delayed or permanent retention.

The experimental method used in this study was a combination of the equivalent-group method and the rotation method. The rotation method tends to eliminate lesson differences, test differences, and differences in position on growth curve, thus tending to equalize the units of measurement.

Class A had Exercise 1 with drawings; Class B had Exercise 1 without drawings. This plan was reversed for Exercise 2. This method of rotation was continued throughout the fourteen exercises. Thus, each class had seven exercises with drawings and seven without drawings.

Care was taken to control the irrelevant factors throughout the experiment. The only directions given the pupils during the laboratory exercises were those on the direction sheets. In the class discussion of material which had been observed in the laboratory, a carefully prepared outline was followed by the instructor in order that the points covered might be the same for both groups.

In order to prevent pupils from slighting the drawings and using the additional time for studying the specimen or answering supple-

TABLE I  
AVERAGE SCORES ON THE MEMORY TEST MEASURING  
IMMEDIATE RETENTION

EXERCISE	CLASS A		CLASS B	
	With Drawing	Without Drawing	With Drawing	Without Drawing
1.....	8.8	.....	.....	7.7
2.....	.....	7.5	7.4	.....
3.....	8.1	.....	.....	6.0
4.....	.....	6.7	6.4	.....
5.....	7.7	.....	.....	8.1
6.....	.....	8.0	7.1	.....
7.....	6.2	.....	.....	6.8
8.....	.....	8.1	8.7	.....
9.....	7.1	.....	.....	6.8
10.....	.....	9.1	8.7	.....
11.....	8.8	.....	.....	8.4
12.....	.....	7.2	6.8	.....
13.....	6.7	.....	.....	7.1
14.....	.....	8.9	8.8	.....
Average..	7.6	7.9	7.7	7.3

mentary questions, the drawings were scored on the basis of the parts shown and labeled correctly. The scores were reported to the pupils the next day. The pupils were told that their scores on the drawings would count as part of their marks on the laboratory exercise.

If a member of a class was absent, the record of the corresponding pupil in the other class was discarded. This method was used both in the tests measuring immediate retention and in the tests measuring permanent retention.

The average scores of each class on the memory test measuring immediate retention are shown in Table I.

Class A made an average score of 7.6 on the seven exercises which it had with drawings. Class B made an average score of 7.3 on the same seven exercises without drawings. There is a difference of .3 of a point in favor of Class A with drawings.

Class A made an average score of 7.9 on the seven exercises which it had without drawings. Class B made an average score of 7.7 on the same seven exercises with drawings. There is a difference of .2 of a point in favor of Class A without drawings.

TABLE II  
AVERAGE SCORES ON THE ANALYSIS TEST MEASURING  
IMMEDIATE RETENTION

EXERCISE	CLASS A		CLASS B	
	With Drawing	Without Drawing	With Drawing	Without Drawing
1	6.9	6.6	7.2	7.0
2				
3	6.8	8.5	8.0	6.1
4				
5	8.1			8.5
6		8.0	7.7	
7	4.3			4.0
8		9.1	9.2	
9	5.3			6.1
10		5.8	6.2	
11	6.3			6.5
12		3.6	3.7	
13	4.6			5.5
14		8.0	8.0	
Average..	6.0	7.1	7.1	6.2

The average scores of each class on the analysis test measuring immediate retention are shown in Table II.

Class A made an average score of 6.0 on the seven exercises which it had with drawings. Class B made an average score of 6.2 on the same seven exercises without drawings. There is a difference of .2 of a point in favor of Class B without drawings.

Class A made an average score of 7.1 on the seven exercises which it had without drawings. Class B made the same average score of 7.1 on the same seven exercises with drawings.

The average total scores of each class on the tests measuring immediate retention are presented in Table III.

Class A made an average total score of 13.6 on the seven exercises which it had with drawings. Class B made an average total score of 13.5 on the same seven exercises without drawings. There is a difference of .1 of a point in favor of Class A with drawings.

Class A made an average total score of 15.0 on the seven exercises which it had without drawings. Class B made an average total score of 14.8 on the same seven exercises with drawings. There is a difference of .2 of a point in favor of Class A without drawings.

TABLE III  
AVERAGE TOTAL SCORES\* ON TESTS MEASURING IMMEDIATE RETENTION

EXERCISE	CLASS A		CLASS B	
	With Drawing	Without Drawing	With Drawing	Without Drawing
1.	15.7	14.1	14.6	14.7
2.	14.9	15.2	14.4	12.1
3.	15.8	16.0	14.8	16.6
4.	10.5	17.2	17.9	10.8
5.	12.4	14.9	14.9	12.9
6.	15.1	10.8	10.5	14.9
7.	11.3	16.9	16.8	12.6
Average...	13.6	15.0	14.8	13.5

\* The total score is the sum of the scores made on the memory and analysis tests.

The average number of supplementary questions answered by each class is shown in Table IV.

Class A answered an average of 2.5 supplementary questions on the seven exercises which it had with drawings. Class B answered an average of 12.7 supplementary questions on the same seven exercises without drawings. There is a difference of 10.2 questions in favor of Class B without drawings.

Class A answered an average of 13.0 supplementary questions on the seven exercises which it had without drawings. Class B answered an average of 6.1 supplementary questions on the same seven exercises with drawings. There is a difference of 6.9 questions in favor of Class A without drawings.

The average scores of each class on the memory test measuring permanent retention are presented in Table V. Experimental co-

TABLE IV  
AVERAGE NUMBER OF SUPPLEMENTARY QUESTIONS ANSWERED  
BY EACH CLASS

EXERCISE	CLASS A		CLASS B	
	With Drawing	Without Drawing	With Drawing	Without Drawing
1	6.4			13.3
2		12.9	5.7	
3	2.1			13.3
4		13.6	6.6	
5	3.4			13.3
6		13.5	8.1	
7	2.4			10.8
8		14.2	8.8	
9	1.1			9.6
10		13.1	2.4	
11	2.0			14.4
12		8.9	4.7	
13	0.2			14.1
14		14.8	6.1	
Average..	2.5	13.0	6.1	12.7

TABLE V  
AVERAGE SCORES ON THE MEMORY TEST MEASURING PERMANENT RETENTION

EXERCISES	CLASS A				CLASS B			
	With Drawing			Without Drawing	With Drawing			Without Drawing
	Average Score	Stand-ard Devia-tion	Experi-mental Coeffi-cient	Average Score	Stand-ard Devia-tion	Experi-mental Coeffi-cient	Average Score	Stand-ard Devia-tion
1 and 3....	15.1	4.24	.73				12.7	4.47
2 and 4....				13.7	4.01	.40	12.4	3.64
5 and 7....	10.7	5.23	.05					
6 and 8....				13.9	6.88	.04	13.7	4.90
9, 11, and 13	16.4	5.95	.28					
10, 12, and 14....				22.0	8.73	.34	19.9	6.94
Average..	14.1	5.14	.35	16.5	6.54	.28	15.3	5.16
							13.6	4.96

efficients were computed in order to determine the significance of differences between groups.

Class A made an average score of 14.1 on the three sets of exer-

cises which it had with drawings. Class B made an average score of 13.6 on the same exercises without drawings. The standard deviation of Class A is 5.14. The standard deviation of Class B is 4.96. There is a difference between the test scores of .5 of a point in favor of Class A with drawings. The experimental coefficient for this difference is .35.

Class A made an average score of 16.5 on the three sets of exercises which it had without drawings. Class B made an average score of 15.3 on the same exercises with drawings. The standard deviation of Class A is 6.54. The standard deviation of Class B is 5.16.

TABLE VI  
AVERAGE SCORES ON THE ANALYSIS TEST MEASURING PERMANENT RETENTION

EXERCISES	CLASS A						CLASS B			
	With Drawing			Without Drawing			With Drawing		Without Drawing	
	Average Score	Stand-ard Devia-tion	Experi-mental Coeffi-cient	Average Score	Stand-ard Devia-tion	Experi-mental Coeffi-cient	Average Score	Stand-ard Devia-tion	Average Score	Stand-ard Devia-tion
1 and 3....	15.3	3.46	.17	.....	.....	.....	13.8	4.79	14.8	4.24
2 and 4....	.....	.....	.....	15.6	3.32	.49	.....	.....	11.3	3.01
5 and 7....	11.4	3.03	.04	.....	.....	.....	14.5	3.97	.....	.....
6 and 8....	.....	.....	.....	15.3	5.32	.24	.....	.....	15.3	3.92
9, 11, and 13	14.9	5.15	.11	.....	.....	.....	16.6	3.55	.....	.....
10, 12, and 14	.....	.....	.....	17.0	3.88	.13	.....	.....	.....	.....
Average.	13.9	3.88	.11	16.0	4.17	.29	15.0	4.10	13.8	3.72

There is a difference between the test scores of 1.2 points in favor of Class A without drawings. The experimental coefficient for this difference is .28.

The average scores of each class on the analysis test measuring permanent retention are presented in Table VI.

Class A made an average score of 13.9 on the three sets of exercises which it had with drawings. Class B made an average score of 13.8 on the same exercises without drawings. The standard deviation of Class A is 3.88. The standard deviation of Class B is 3.72. There is a difference between the test scores of .1 of a point in favor of Class A with drawings. The experimental coefficient for this difference is .11.

Class A made an average score of 16.0 on the three sets of exercises which it had without drawings. Class B made an average score of 15.0 on the same exercises with drawings. The standard deviation of Class A is 4.17. The standard deviation of Class B is 4.10. There is a difference between the test scores of 1.0 point in favor of Class A without drawings. The experimental coefficient for this difference is .29.

The average total scores of each class on the tests measuring permanent retention are presented in Table VII.

TABLE VII  
AVERAGE TOTAL SCORES\* ON TESTS MEASURING PERMANENT RETENTION

EXERCISES	CLASS A						CLASS B			
	With Drawing			Without Drawing			With Drawing		Without Drawing	
	Average Score	Stand-ard Devia-tion	Experi-mental Coeffi-cient	Average Score	Stand-ard Devia-tion	Experi-mental Coeffi-cient	Average Score	Stand-ard Devia-tion	Average Score	Stand-ard Devia-tion
1 and 3....	30.4	4.89	.60	.....	.....	.....	.....	.....	27.5	7.53
2 and 4....	.....	.....	.....	29.3	5.64	.60	26.2	6.83	.....	.....
5 and 7....	22.1	5.60	.06	.....	.....	.....	.....	.....	21.8	6.19
6 and 8....	.....	.....	.....	29.2	9.15	.17	28.2	7.12	.....	.....
9, 11, and 13	31.3	9.09	.26	.....	.....	.....	.....	.....	33.0	7.56
10, 12, and 14	.....	.....	.....	39.0	8.61	.38	36.5	7.92	.....	.....
Average	27.9	6.53	.31	32.5	7.80	.38	30.3	7.29	27.4	7.09

\* The total score is the sum of the scores made on the memory and analysis tests.

Class A made an average total score of 27.9 on the exercises which it had with drawings. Class B made an average total score of 27.4 on the same exercises without drawings. The standard deviation of Class A is 6.53. The standard deviation of Class B is 7.09. There is a difference between the test scores of .5 of a point in favor of Class A with drawings. The experimental coefficient for this difference is .31.

Class A made an average total score of 32.5 on the exercises which it had without drawings. Class B made an average total score of 30.3 on the same exercises with drawings. The standard deviation of Class A is 7.80. The standard deviation of Class B is 7.29. There is a difference between the test scores of 2.2 points in favor of

Class A without drawings. The experimental coefficient for this difference is .38.

The reliability coefficients of three of the fourteen objective tests selected at random were determined by giving these tests to a class in zoölogy not concerned in this study. The reliability coefficients as computed by the Pearson product-moment method are as follows: .84 with a probable error of .033, .72 with a probable error of .054, and .90 with a probable error of .023.

#### SUMMARY AND CONCLUSIONS

In most cases the data in this study are insufficient for more than tentative generalizations. The limitations of this type of investigation are fully realized by the writer. It is hoped, however, that this study may make a small contribution to the scientific study of laboratory procedure.

The summary and the conclusions here stated apply only to the subjects used and under the conditions represented in the investigation.

1. Seven exercises in the memory tests measuring immediate retention showed an average difference of .3 of a point in favor of the class with drawings. The other seven exercises showed an average difference of .2 of a point in favor of the class without drawings. Since these differences are slight, the achievement of the two classes may be assumed to be equal.

2. Seven exercises in the analysis tests measuring immediate retention showed an average difference of .2 of a point in favor of the class without drawings. The other seven exercises showed no difference between the average scores. The achievement of the two classes may be assumed to be equal.

3. Seven exercises in the tests measuring immediate retention showed an average difference of .1 of a point in favor of the class with drawings. The other seven exercises showed an average difference of .2 of a point in favor of the class without drawings. Since these differences are slight, the achievement of the two classes may be assumed to be equal.

4. The class without drawings answered five times as many supplementary questions on seven laboratory exercises as did the class with drawings. The class without drawings answered approximately

twice as many supplementary questions on the other seven laboratory exercises as did the class with drawings.

5. Seven exercises in the memory tests measuring permanent retention showed an average difference of .5 of a point in favor of the class with drawings. The experimental coefficient for this difference is .35. The difference is too small to show positively that the one method is better than the other. The other seven exercises showed an average difference of 1.2 points in favor of the class without drawings. The average experimental coefficient for this difference is .28. The average difference of 1.2 points is not large enough to be of significance.

6. Seven exercises in the analysis tests measuring permanent retention showed an average difference of .1 of a point in favor of the class with drawings. The experimental coefficient for this difference is .11. The achievement of the two classes may be considered equal. The other seven exercises showed an average difference of 1.0 point in favor of the class without drawings. The experimental coefficient for this difference is .29. The average difference of 1.0 point cannot be considered significant.

7. Seven exercises in the tests measuring permanent retention showed an average difference of .5 of a point in favor of the class with drawings. The experimental coefficient for this difference is .31. There is no certainty that the one group is superior to the other in achievement. The other seven exercises showed an average difference of 2.2 points in favor of the class without drawings. The experimental coefficient for this difference is .38. There is no certainty that the difference is significant.

The data here presented would seem to warrant the following conclusions.

1. The construction of representative drawings does not aid the pupil in making analytical observations of material under study.
2. The construction of representative drawings does not aid the pupil in remembering observations made in the laboratory. This applies both to immediate retention and to permanent retention.
3. It would seem advisable to omit representative drawings from laboratory procedure and to replace them with supplementary work, thereby enriching the course.

## THE SELECTED NATURE OF A PARTICULAR SCHOOL POPULATION

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For years evidence as to the selected nature of the successive grades in school has been accumulating. So much evidence has been collected that today many of the phenomena of the school are explained in terms of this selection. The following analysis of a particular school population, however, seems to indicate that there are trends in this selective process that have not been noted in other studies and trends that are contrary to those found elsewhere. As to whether or not similar conditions would be found in other schools, the writer does not care to predict. Certainly there is need for investigation, need for the analysis of the data now available, and need for securing new data for analysis. General conditions and conclusions are not necessarily applicable to particular situations, as is well illustrated by the facts here presented.

The population under consideration consisted of 551 white pupils attending the high schools of Lincoln Parish, Louisiana, and 467 white pupils in the fifth, sixth, and seventh grades of this parish.<sup>1</sup> The following schools were included in the study: three small consolidated rural schools teaching all grades through the high school, one school in a town of approximately 1,000 population housing the elementary school and the high school in separate buildings, and the only high school and two elementary schools in a town of approximately 5,000 population. These schools enrolled the entire high-school population of the parish and approximately two-thirds of the elementary-school population, the remaining one-third being in small one- and two-room schools. The high-school group included all the high-school pupils who were present on the particular days the schools were visited. The elementary-school group included all

<sup>1</sup> Louisiana, in common with a few other states, maintains but seven years of elementary-school training.

the pupils in the fifth, sixth, and seventh grades of the three small schools, in the fifth and sixth grades of the fourth school, in the fifth and seventh grades of one of the elementary schools in the larger town and in the fifth, sixth, and seventh grades of the second school.

The pupils were given the Otis Self-Administering Tests of Mental Ability and the Sims Score Card for Socio-Economic Status.<sup>1</sup> The Otis tests are so well known that they need no mention. The intermediate form was given to the pupils in Grades V, VI, and VII; the higher form, to the high-school pupils. The Sims score card is an instrument for measuring home background. The measure is based on the answers given by the pupil to a series of questions relating to home conditions. Each of the questions has been tested for its reliability and validity and is weighted accordingly. The average of the total of these weights is the subject's score.

Material is thus available for comparing the pupils in the high school and the pupils in the last three grades of the elementary school as to intelligence and home background. The results for the two groups are as follows: The average I.Q. of 467 pupils in the fifth, sixth, and seventh grades is 88.3 with a sigma of 16.2. The average I.Q. of 551 pupils in the high school is 93.4 with a sigma of 11.9. The average socio-economic status of 467 pupils in the fifth, sixth, and seventh grades is 13.7 with a sigma of 6.2. The average socio-economic status of 551 pupils in the high school is 15.5 with a sigma of 5.7.

The high-school distribution has a higher average and a narrower range than has the elementary-school distribution with reference to both intelligence score and socio-economic status. The differences are not very great, but investigation convinces one that they indicate the existence of significant or "true" differences between the two groups. The difference between the average I.Q. of the high-school group and the average I.Q. of the elementary-school group is 5.1 points. The sigma of unreliability of this difference as determined by Thorndike's formula<sup>2</sup> is .9. The difference between the two aver-

<sup>1</sup> The writer acknowledges his indebtedness to G. W. Bond, of the Department of Education, Louisiana Polytechnic Institute, for making available a large portion of the data.

<sup>2</sup> Edward L. Thorndike, *An Introduction to the Theory of Mental and Social Measurements*, p. 193. New York: Teachers College, Columbia University, 1916.

ages is more than five times the sigma of unreliability and is, therefore, a true difference. In all probability the difference of 1.8, with a sigma of unreliability of .4, between the average socio-economic status of the two groups also indicates a true difference. These differences, however, are not very great. Perhaps the best method of showing how slight they really are would be to consider the overlapping of the elementary-school distribution and the high-school distribution. Thirty-nine per cent of the pupils in the elementary school have I.Q.'s equal to or greater than the average I.Q. of the high-school pupils. Thirty-eight per cent of the elementary-school pupils have a socio-economic status equal to or greater than the average socio-economic status of the high-school pupils. If the two distributions were identical, the percentage of elementary-school pupils who equal or exceed the average of the high-school population would be 50; if they were separate and distinct distributions, this percentage would be 0.

The high-school population, then, is not a very highly selected group when compared with the population of the last three grades of the elementary schools attached to the high schools. This fact would seem to indicate either that the high-school population is not a very highly selected group or that the group with which it is being compared—the pupils in the last three grades of the elementary school—is itself a selected group. Everything would point toward the fact that the elementary-school pupils included in this study are of a higher intellectual and socio-economic level than are those found in the smaller schools of the parish, but analysis of the data gives further evidence that the elementary-school group is highly selected. Table I presents the average I.Q. and the average socio-economic status, together with their sigmas, of each of the seven grades included in this study.

Table I seems to indicate that in the schools represented the selective process begins long before the high-school age, that it is more or less gradual, and that it fails to operate throughout the high school. There is a slight increase in the intellectual level and in the socio-economic status of each higher grade within the elementary school. Within the high school, however, there seems to be no consistent change from grade to grade. It is interesting to note that the

most significant difference between the high school and the last grade of the elementary school is the narrower range of intelligence in the high school, the sigmas for the grades in the high school being consistently smaller than those for the grades in the elementary school.

There seems to be a decided change in the nature of the school population at the end of the fifth grade. If we could consider the fifth grade as an unselected group representative of the general population (it is probably not representative of the general population but, rather, a selected group within itself), comparison between this group and the high school would give some idea of the selective na-

TABLE I  
AVERAGE I.Q. AND AVERAGE SOCIO-ECONOMIC STATUS OF EACH GRADE

GRADE	NUMBER OF PUPILS	I.Q.		SOCIO-ECONOMIC STATUS	
		Average	Sigma	Average	Sigma
V.....	145	85.4	14.6	11.5	5.6
VI.....	159	89.5	17.6	14.7	5.8
VII.....	163	91.2	15.5	14.9	6.2
VIII.....	178	93.4	11.9	15.3	5.0
IX.....	116	91.5	12.3	15.8	6.1
X.....	139	93.5	11.6	15.7	5.6
XI.....	118	92.2	11.5	15.3	5.8

ture of the high school. This comparison is as follows: The average I.Q. of 145 fifth-grade pupils is 85.4 with a sigma of 14.6. The average I.Q. of 551 high-school pupils is 93.4 with a sigma of 11.9. The average socio-economic status of 145 fifth-grade pupils is 11.5 with a sigma of 5.6. The average socio-economic status of 551 high-school pupils is 15.5 with a sigma of 5.7.

The difference between the average I.Q. of the high-school pupils and the average I.Q. of the fifth-grade pupils is 8.0 with a sigma of unreliability of 1.2. The difference between the average socio-economic status of the high-school pupils and the average socio-economic status of the fifth-grade pupils is 4.0 with a sigma of unreliability of .5. Since the sigmas of unreliability are determined from a much smaller number of cases in this comparison than in the previous comparison between the elementary school and the high

school, the differences are in all probability even greater than they appear to be. At any rate, the differences between the fifth grade and the high school are greater than the differences between the combined upper grades of the elementary school and the high school. That this is true is shown by the following facts: (1) only 31 per cent of the fifth-grade pupils have I.Q.'s equal to or greater than the average I.Q. of the high-school pupils; (2) only 21 per cent of the fifth-grade pupils have a socio-economic status equal to or greater than the average socio-economic status of the high-school pupils.

It is impossible to draw general conclusions from such a limited study, but for the population here considered the following conclusions may be drawn. First, the high-school pupils are slightly more intelligent than are the pupils in the fifth, sixth, and seventh grades, and the homes from which the high-school pupils come are slightly superior to those from which the elementary-school pupils come. Second, within the elementary-school population there are consistent differences between grades, each grade having a lower average I.Q. and a lower average socio-economic status than has the next higher grade. Within the high-school group this condition does not exist. Third, the most marked difference is between the fifth and sixth grades. This fact would seem to indicate that there is a decided change that takes place here. Fourth, there is a significant and rather marked difference between the fifth grade and the high school in intelligence and socio-economic status. This difference probably indicates that between the high school and the general population there are even more decided differences. Fifth, the range of intelligence in the high-school population is consistently less than that in the elementary-school population.

The data here presented would seem to have certain educational implications for the schools represented. So far as the homogeneity of the population is concerned, there is slight justification for making the break which at present occurs between the seventh and eighth grades.<sup>1</sup> If the break were made between the fifth and sixth grades,

<sup>1</sup> Although in the three small schools the elementary school and the high school are housed in the same building, the elementary school is separate and distinct from the high school. Here, as in the other schools, the child must "graduate" from the elementary school before he can enter the high school.

however, it would tend to make the differences even more pronounced. It is suggested, rather, that any break is disadvantageous. In other words, one must have great confidence in the drawing power of junior high schools to recommend, in the face of these facts, that this particular parish organize such schools as separate units housed in separate buildings. Such organization would but make a logical stopping-place at a point already subject to heavy elimination. Unless the attractions were especially strong, this break would, in the opinion of the writer, make the student body more highly selected.

The forces causing elimination and consequent greater selection as we advance through the grades are probably not administrative, since there is no administrative reason for the differences between the fifth and sixth grades.<sup>1</sup> These forces may be economic and social, or they may be due to curricular content, aim, or method. At any rate, they demand serious investigation, for, although some administrative device might offer immediate solution by retaining those pupils now being eliminated, the cause of the elimination would yet remain.

Finally, intellectual ability and socio-economic status may be determining factors in elimination in the elementary schools, but the evidence here presented would seem to indicate that we must seek elsewhere for the causes of elimination within these high schools.

<sup>1</sup> The compulsory-attendance law of Louisiana, which is not very rigidly enforced in the parish, demands attendance up to the age of fourteen or the completion of the elementary school.

## THE REGULATION OF PARTICIPATION IN EXTRA-CURRICULUM ACTIVITIES IN THE SIX-YEAR HIGH SCHOOL

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Practically every secondary school makes some attempt to provide a program of extra-curriculum activities. It should also be the function of every school to regulate the participation of pupils in extra-curriculum activities so that the abilities, interests, and limitations of each individual will be best served. Very few schools attempt a definite program of fitting extra-curriculum activities to the needs, abilities, and interests of each pupil. Many schools are beginning to offer differentiated curriculums for various types of pupils, the types being defined by the needs of the individual pupils. It is necessary to keep in mind the fact that the needs of individual pupils require possibly even greater elasticity and variation in the administration of extra-curriculum activities than in the administration of an academic program.

Terry has shown that such elasticity and variation are not found in common practice.<sup>1</sup> In a study of nearly sixty schools only three standards for limitation have been established: (1) limitation on the basis of scholarship, (2) limitation by club election, (3) limitation according to the type of organization. Little has been done to adapt the program to individual pupils. There is plenty of evidence to show that within very broad limits pupils have been allowed to follow their own inclinations and that these inclinations have not always served to develop the best interests and abilities of the pupils.

Terry shows that in a great many cases there is no defined limitation of activities.<sup>2</sup> He also shows that there has been very little distinction made in regulating the participation of individual pupils

<sup>1</sup> Paul W. Terry, *Extra-Curricular Activities in the Junior High School*, p. 54. Baltimore: Warwick & York, Inc., 1926.

<sup>2</sup> *Ibid.*

in extra-curriculum activities. Pupils are allowed to join one or two clubs, or all may earn a certain number of points so long as their classroom work is satisfactory. In other words, there is no relation between the amount of time spent in participation and the scholarship of the pupil.

The faculty committee in charge of extra-curriculum activities in the Dearborn High School was instructed to determine the relation that actually exists between scholarship and activity participation and to make such recommendations as seemed desirable.

The data for the study were taken from the 1926-27 records of the Dearborn High School. This school is a six-year high school in a relatively wealthy suburb of Detroit. The records of only those pupils who completed the full year of work were considered. This plan was decided upon as it provides a fair basis for the comparison of activity and scholastic achievement.

The study was undertaken (1) to determine the effect of activity participation on scholarship and (2) to set up guiding principles for the control and regulation of extra-curriculum activities so far as they are related to scholastic achievement.

The following regulations govern participation in school activities. (1) A pupil may not belong to more than two recognized school clubs at one time. (2) The maximum number of points that may be earned by an average pupil during his six years in high school is 50. (3) The minimum number of points to be earned is 30. (4) Exceptional pupils may obtain permission to earn more than 50 points.

Table I illustrates the types of activities that are available for pupils. Club membership is elective, but nearly all the other activities listed obtain their members by competitive methods.

It is evident from Table I that the activities are divided into two classifications, namely, "major" and "minor." Direct restriction is made only with regard to minor clubs, which meet twice a month during the activity period.

Table II shows the distribution of the pupils in each grade on the basis of the marks received. The mark for a given pupil is the average of all marks received for both the first and the second semesters.

Table III shows the distribution of the pupils on the basis of the number of activity points earned. The highest number of points earned was seventeen. Only four pupils earned from fifteen to seventeen points. Seven pupils earned from twelve to fifteen points.

TABLE I

## POINT VALUE OF ACTIVITIES

Clubs and Activities	Points Awarded for Participation
Major activities (3-5 points):	
Editor of <i>Annual</i> .....	5
Assistant editors.....	4
Debating.....	5
Major sports.....	5
Student council.....	3
Minor activities (1-2 points):	
Junior and senior officers.....	2
Club officers.....	2
Minor sports.....	2
Participation in plays.....	2
Staff officers.....	1
Club membership.....	1

TABLE II

## DISTRIBUTION OF THE PUPILS IN EACH GRADE ON THE BASIS OF THE MARKS RECEIVED DURING THE SCHOOL YEAR 1926-27

Grade	60-70	71-80	81-90	91-100	Total
VII.....	10	15	40	20	85
VIII.....	4	24	23	14	65
IX.....	2	30	39	8	79
X.....	6	31	35	5	77
XI.....	0	13	27	4	44
XII.....	0	3	24	3	30
Total.....	22	116	188	54	380
Per cent.....	5.8	30.5	49.5	14.2	.....

The distribution of the pupils on the basis of scholarship and the number of activity points earned is shown in Table IV. An analysis of this table shows that 86 per cent of the pupils who have average marks between 60 and 70 earned less than four activity points. It is a general belief that all pupils should participate in activities. In this group restriction has been well taken care of.

Table IV shows that the median pupil of each group in the classification according to the number of activity points earned has a scholarship rating between 81 and 90. This seems to indicate that the activities of the pupils in the Dearborn High School are properly regulated so far as scholarship is concerned. In other words, the

TABLE III  
DISTRIBUTION OF THE PUPILS IN EACH GRADE ON THE BASIS OF  
THE NUMBER OF ACTIVITY POINTS EARNED DURING  
THE SCHOOL YEAR 1926-27

Grade	0-3	4-7	8-11	12 or More	Total
VII.....	67	11	7	0	85
VIII.....	43	17	5	0	65
IX.....	52	19	8	0	79
X.....	44	25	5	3	77
XI.....	10	19	9	6	44
XII.....	11	11	6	2	30
Total.....	227	102	40	11	380
Per cent.....	59.7	26.8	10.5	2.9	.....

TABLE IV  
DISTRIBUTION OF THE PUPILS ON THE BASIS OF THE MARKS RECEIVED  
AND THE NUMBER OF ACTIVITY POINTS EARNED

MARKS	NUMBER OF ACTIVITY POINTS				
	0-3	4-7	8-11	12 or More	Total
60-70.....	19	3	0	0	22
71-80.....	78	29	7	2	116
81-90.....	108	51	22	7	188
91-100.....	22	19	11	2	54
Total.....	227	102	40	11	380
Median.....	82.8	85.1	87.5	86.7	84.1

scholarship of the school does not seem to be greatly affected by activity participation. In fact, the median pupil in each group represented by more than four activity points has a higher scholarship rating than has the median pupil in the group with less than four activity points.

An analysis of Table IV shows that the existing restrictions do not entirely take care of the situation. Ten per cent of the pupils

who earned less than four activity points received marks averaging more than 90. It is not possible to estimate the effect of increased participation in activities on the scholarship averages of these pupils. It would seem, however, that this type of pupil should be encouraged to undertake heavier activity schedules.

Of the pupils earning from four to seven activity points, 31.4 per cent have scholarship averages of 80 or less. Of the pupils earning from eight to eleven activity points, 17.5 per cent have scholarship averages of 80 or less. Of the pupils earning from twelve to seventeen activity points, 18.2 per cent have scholarship averages of 80 or less, and only 18.2 per cent are honor pupils. These facts indicate that some basic criteria are necessary in order to regulate activity participation.

This study concerning the relation between activity participation and scholastic achievement justifies the following recommendations.

1. Scholastic achievement should be a basic criteria for determining limitations in activity participation.
2. Failing pupils should be limited to minimum participation.
3. Pupils should be encouraged to increase their activities in proportion to their scholarship ratings.
4. Honor pupils may be encouraged to undertake maximum participation.

## Educational Writings

### REVIEWS AND BOOK NOTES

*A digest of investigations relating to sex differences in growth.*—As educational investigations become more numerous and diverse, it becomes increasingly difficult for students to familiarize themselves with the salient features and results of studies in each of several phases of education. This problem has been simplified in a few fields by summaries giving the gist of significant studies. A summary of investigations yielding evidence on the question of sex differences in the growth of school children is presented in a book<sup>2</sup> by Edward Andrews Lincoln. The book contains material which was accepted in 1924 by the faculty of the Harvard Graduate School of Education as a Doctor's thesis. Brief accounts of several investigations made by the author are included in the digest.

In the first chapter an account of the early studies of sex differences is given, and the problem is outlined. The next four chapters contain summaries of the evidence of sex differences in physical growth, in mental development, in school accomplishment, and in variability. The last chapter, the sixth, is concerned with the educational significance of sex differences. The evidence mustered in the fifth chapter indicates that there are no significant sex differences in variability. The greatest difference is found in physical development, in which the girls are apparently from twelve to eighteen months in advance of the boys. This is believed to account for the general superiority of girls in school work. The fact that a corresponding advancement of the girls is not found in measurements of mental development is thought to be due to weighting of tests with materials more familiar to boys. It is suggested that an adjustment could be made in our schools by admitting girls at an age earlier by one year than that at which boys enter.

The book has several faults which should be mentioned. It contains no list of tables. The 181 pages of text include 148 numbered tables and several other tables which have neither numbers nor titles. Many of the table titles are not well expressed, and some of them are improperly punctuated. The book is carelessly documented in so far as observance of uniformity and the giving of complete information are concerned. The names of publishers are given in very incomplete form, and abbreviations for the names of journals vary widely. The place of publication of a book is rarely given.

<sup>2</sup> Edward Andrews Lincoln, *Sex Differences in the Growth of American School Children*. Baltimore: Warwick & York, Inc., 1927. Pp. xii+190.

Perhaps the most serious criticism of the book is the fact that the material was three years old at the date of publication. There is not a single reference to a study made since 1924. The author did not bring his digest up to the date of publication; many important recent studies are therefore not included. For instance, the discussion of the use of radiographs in determining anatomical age does not include investigations since Baldwin's use of total skiagraphic area as a measure of ossification and Prescott's study of 1923. The author dismisses the subject by saying that a ratio has been proposed which shall take into consideration skeletal size and thus indicate relative ossification. As a matter of fact, such a measure was used in the study of radiographs presented as a Doctor's thesis at the University of Chicago in 1924 by T. M. Carter and has been in use there since that time. This example is only indicative of the limitations of the book.

In spite of the defects pointed out, the book will be a useful reference book for students of the mental and physical growth of children and for all who are interested in a detailed factual study of differences in the growth of boys and girls.

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*The development of the junior high school in small communities.*—During the past decade the movement to make the junior high school a unit of the public-school system has gained considerable momentum. The practice of establishing such high schools has, however, been confined to cities and the larger communities. Smaller communities have been deterred from the reorganization involved in the adoption of the junior high school program not because the need is not present but because the enrolment and the financial resources are limited. It follows, therefore, that a competent investigation of the factors which condition economy in school and class organization would meet a very real need. A recent publication<sup>1</sup> which reports such an investigation undertakes "to determine, first, to what extent the usual junior high procedure is feasible in the small school; second, what commonly accepted procedure cannot be employed; and, third, in how far through other means the small school may attain the objectives of the reorganization" (p. 171).

The book is divided into four parts. Part I is concerned with the present status and functions of the small junior high school. The conditions and practices in more than a score of small junior high school systems throughout Massachusetts constitute the basis for the information set forth in this part. Part II analyzes the difficulties peculiar to the small junior high school as revealed in the systems studied. Part III studies the curricular offerings in these

<sup>1</sup> Francis T. Spaulding, *The Small Junior High School: A Study of Its Possibilities and Limitations*. Harvard Studies in Education, Volume IX. Cambridge, Massachusetts: Harvard University Press, 1927. Pp. xvi+226. \$2.50.

systems. Part IV, which deals with the limitations and possibilities of the small junior high school, reviews the conclusions reached in the three preceding parts and uses them as a basis for indicating types of procedure that are feasible in the small junior high school and as a basis for suggesting a program of studies for this type of school. The last chapter, "Possibilities of Improvement in the Work of the Small School," is also based on the conclusions mentioned. An excellent bibliography and an index conclude the book.

The book reports the most complete and satisfactory study of the organization and administration of the small junior high school that has yet been made. Many of the conclusions are valid for all such schools only so far as the small Massachusetts schools are typical of those in the country at large, but there is little reason for thinking that the major problems vary widely from state to state.

ALBERT GRANT

*A pictorial history of the United States.*—"Idealism has not died with America's mounting wealth nor has materialism crushed the finer sensibilities of this people of the United States" (XII, 3). This ringing note of optimism from the pen of Ralph Henry Gabriel, editor of a series of books<sup>1</sup> which set forth the spirit of America through well-chosen pictures fairly represents the intense Americanism of the volumes, and yet there is nothing of jingoism or sentimental appeal to patriotism.

Here passes before the reader (if we may say that one "reads" pictures) the real pageant of our country, and what a truly stirring show it is! Here is life in its most primitive aspects (for example, I, 1-60, *passim*). With the simplest of tools, hardy pioneers wring a scanty livelihood from the wilderness (especially Vol. III) and effect such social and governmental organization as is necessary for protection.

Patriots rush to the defense of their homes, and the world's outstanding galaxy of "idealists" launches a nation founded on new principles (Vol. VIII). From simple tools evolve, under American genius, agricultural implements whose markets are the world (Vol. III). Here are men and women from whose hands and brains have come power plants of tremendous energy and industrial organizations whose productive capacity staggers the world (Vol. V). The meaning of it all—the interpretation of this new world—is presented by Americans

<sup>1</sup> The Pageant of America: Volume I: *Adventurers in the Wilderness* by Clark Wissler, Constance Lindsay Skinner, and William Wood (pp. 370). Volume III: *Toilers of Land and Sea* by Ralph Henry Gabriel (pp. 340). Volume V: *The Epic of Industry* by Malcolm Keir (pp. 330). Volume VIII: *Builders of the Republic* by Frederic Austin Ogg (pp. 352). Volume XI: *The American Spirit in Letters* by Stanley Thomas Williams (pp. 330). Volume XII: *The American Spirit in Art* by Frank Jewett Mather, Jr., Charles Rufus Morey, and William James Henderson (pp. 354). Volume XIII: *The American Spirit in Architecture* by Talbot Faulkner Hamlin (pp. 354). New Haven, Connecticut: Yale University Press.

in literature (Vol. XI), in painting and sculpture (Vol. XII), and in architecture (Vol. XIII).

Sound scholarship and excellent judgment are represented in the selection of the pictures. Thorough learning and simple diction characterize the illuminating explanations and editorial interpretations. The quality of bookmaking workmanship adds to the well-earned reputation of the Yale University Press.

The *Pageant of America* should be in the library of every college, every high school, and every junior high school in America. Americans who can afford good books and who love our country's history will welcome an opportunity to place it in their homes so that their children may have the advantage of closer familiarity with it than library use permits.

W. J. COOPER

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION  
SACRAMENTO, CALIFORNIA

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*Space utilization of public-school buildings.*—The superintendent or school-board member who has been faced with the necessity of appealing to the taxpayers of his district for permission to enlarge, replace, or supplement a particular building which is overcrowded and who has had difficulty in explaining just how overcrowded it is and just how he knows it is overcrowded will welcome a book<sup>1</sup> which attempts to put the determination of such questions on a scientific basis. The author sums up the problem in these words: "When a building seems to be congested, the superintendent or principal should be able to analyze the situation in a scientific manner, apply approved techniques, and get results that cannot be disputed" (p. 2).

The author develops forms for use in collecting data which will show the amount and percentage of room utilization and pupil-station utilization on the basis of the number of hours a week the school is actually in session and on the basis of a week of 2,400 minutes set up as the standard of comparison. He also develops several formulas which may be used in interpreting the data and in expressing the percentage of utilization in exact form. In order to test the usefulness of the forms and formulas, the author applies them to the measurement of a number of high-school buildings known to be congested. From the data thus obtained he determines the factors likely to lead to complete utilization and those likely to result in congestion without complete utilization. The utilization of different types of rooms and different types of pupil stations is also analyzed. Such factors as size of rooms; size of classes; adjustment of classes to classrooms; assignment of rooms to teachers; location, lighting, heating, and ventilation of rooms; and educational policies, such as noon periods, auditorium or assembly periods, staggered schedules, and types of periods are shown to have considerable influence on the percentage of utilization.

<sup>1</sup> Edgar L. Morphet, *The Measurement and Interpretation of School Building Utilization*. Teachers College Contributions to Education, No. 264. New York: Teachers College, Columbia University, 1927. Pp. viii+102. \$1.50.

Tentative measures of relative congestion are determined for different sizes of high schools for both classroom and pupil-station utilization by studying the data concerning the ten most congested buildings in each size group. The rooms of a particular type are arranged in order according to percentage of utilization, and the 75th percentile is arbitrarily chosen as representing the probable maximum practicable utilization for that type of room. The author admits that the standards set up in the study are purely tentative, but he adds: "This measuring device does have the merit of being entirely objective. It sets up a method of procedure that should become more and more reliable as evidence accumulates through other researches" (p. 82). The study ends with a list of problems that may be attacked by means of this technique.

R. L. C. BUTSCH

*An attractive anthology of English literature.*—It would be difficult to commend too highly the most recent collection<sup>1</sup> of English literature designed for use by junior-college classes and by general readers. The volume, large indeed but so admirably printed and bound that it is easily handled, contains 1,150 double-column pages, in which are representative selections from all the great English authors, Beowulf to Galsworthy. In their choice of materials the editors have considered historical significance, attractiveness for student readers, and intrinsic literary merit. The editors have wisely subordinated the first of these criteria to the second and third; they have produced a volume which conforms admirably to the modern theory of teaching literature: multiply and then multiply again the experiences of students with good reading. Commendably, too, the editors have avoided fragments. All selections are printed in full except a few long works, such as *Don Juan*, which are represented by cuttings. Dramas and novels, omitted entirely because of their length, are nevertheless suitably related to other types of literature by lists of suggested readings appended to each major period.

Arrangement, following the chronological order, groups the materials into twelve periods; within each period the materials are classified into literary types, and each type is represented by various authors. The major periods are prefaced by compact but very readable introductions containing all the literary history that a college Freshman can be expected to remember. Equally succinct biographies of all the authors appear appropriately among the explanatory notes at the end of the volume. The notes are the best the reviewer has seen.

This book of readings has been compiled and edited by men of sound scholarship who realize the necessity of attracting young people while introducing them to literary materials. The anthology is certainly not surpassed by any other book in its field.

R. L. LYMAN

<sup>1</sup> *Heath Readings in the Literature of England*. Compiled and edited by Tom Peete Cross and Clement T. Goode. Boston: D.C. Heath & Co., 1927. Pp. xxviii+1390.

*Teaching history as a science type of subject.*—A recent book<sup>1</sup> on the teaching of American history definitely presents the point of view expressed in Professor Morrison's *The Practice of Teaching in the Secondary School* that history should be taught on the principles of the science type of subject.

According to this view, instruction in history purposes to achieve in the pupil a series of understandings of the larger significant movements in human history which go far to explain the society in which he lives and which develop in him a reasoning attitude toward the social world of today. The main tasks of the author of this aid to teachers of American history were doubtless the scientific determination of the units of learning necessary in the introductory course in this subject and the careful selection of the assimilative material to be used by the teacher in building up the understandings aimed at. He has organized the study material into the following units: "Setting the Stage for Columbus," "Pushing Back the Frontier," "The New World Breaks Away from the Old," "Making the Constitution," "Testing the Constitution," and "The Industrializing of American Life." The "guide sheets" for each of the units consist of six parts: an introductory two- to five-page presentation of the unit, "the outline of the assimilative material, a series of problems focused on the understanding involved in the unit, a series of maps, a group of special projects, and a list of references" (p. 2).

It is evident that the author has engaged in much experimentation with historical materials that might be used in introducing pupils to the study of American history. He believes that the organization presented in the book includes a satisfactory number of significant and comprehensive units of instruction for a one-year course. He is careful to point out that the materials referred to in the outlines and lists must be so focused on the units that the pupils really acquire an understanding of the important movements in American history. He also places emphasis on the "widest possible exposure of the pupils to the best historical literature" (p. 5). Numerous projects are suggested with a view to meeting the needs and interests of individuals and special groups.

Teachers of history in elementary schools and high schools will be stimulated by a study of the unit organization and teaching methods advocated in the book. The adoption *in toto* of the plan presented would doubtless be a boon to many teachers and classes and would help to bring order into "the confusion of tongues" that prevails in the field of history. The author, however, would probably be the last person to consider his plan a fool-proof scheme for the teaching of American history. His selections of topics for study and of assimilative material, interesting and serviceable though they are, cannot be the last word on the subject. One of the most important outcomes of the use of the book will be the further experimentation to which it will undoubtedly inspire teachers in the schools.

DAVID GUSTAFSON

CARNEGIE INSTITUTE OF TECHNOLOGY

<sup>1</sup> D. C. Bailey, *A New Approach to American History: Students' Guide Sheets*. Chicago: University of Chicago Press, 1927. Pp. viii+82. \$1.50.

*Food study for secondary schools.*—The objectives of the teaching of home economics have changed greatly with the growth of the subject. The old textbooks are therefore inadequate, and new books have been slow to appear. The authors of a recent textbook<sup>1</sup> on food have aimed to make food study comparable to the other school sciences and to emphasize health and nutrition rather than cookery and the processes of the production and manufacture of foods. They have also endeavored to stimulate home work by suggesting home-practice exercises and home projects to accompany the school study.

The book is divided into six parts, called "units." Three projects—breakfast, luncheon or supper, and dinner—form the basis of the first three divisions. It is questionable whether the study of food values, food selection, food preparation, meal-planning, and meal service can result in an attitude of real understanding on the part of pupils. However, such an organization is commonly used in home-economics teaching. Parts IV, V, and VI, entitled, "General," "Miscellaneous," and "The Cook Book," certainly are not educational units. They are merely divisions of the book. These sections contain valuable information which the authors intend shall be used in connection with the three projects or when needed. The authors have made no attempt to bind the chapters together by a unifying idea.

Each of the first three units contains an introductory chapter, which presents the main problem to be solved. The succeeding chapters of each unit discuss foods which are essential parts of the meal being studied. In order that the emphasis may not be on food preparation, the recipes are placed in another section of the book. This plan gives the teacher an opportunity to make her own choices. The subject matter is well selected, and, when possible, the emphasis is placed on nutrition. One of the best parts of the book is the list of class problems, questions, and home projects at the end of each chapter. The class problems are based on the interests and needs of high-school girls and offer valuable suggestions to the teacher. The questions which follow the problems should be of help in guiding the study of the girls using the book. The list of home practices and home projects suggests abundant home work to broaden the experience of the girls and to help them share the responsibilities of their homes. The references at the end of each chapter assume a small, well-selected library, and they wisely make use of free and inexpensive study materials.

The textbook is intended to represent a year's work in food study. The organization of the material permits great flexibility; the units need not be offered in sequence but may be divided among several food courses. By using the cross-references to Unit IV and inserting parts of Unit V, the first three units may be extended. Teachers who use the three meals of the day for the organization of their food courses will find the book very helpful. High-school girls will enjoy using the book at school and at home.

AILSIE M. STEVENSON

<sup>1</sup> Jessie W. Harris and Elisabeth V. Lacey, *Everyday Foods*. Boston: Houghton Mifflin Co., 1927. Pp. xiv+512. \$1.56.

*One-act plays for drama courses in high school and junior college.*—It is always refreshing to find a new anthology of modern drama designed primarily for classroom use. While there have been many collections of one-act plays published in the past decade, most of them have been compiled without much thought as to their adaptability to the needs of the high-school pupil. The one-act play is the logical approach to the study of the drama, in high school at least, for the simplicity of the theme and the compactness of the style make possible a clear presentation of the fundamentals of dramatic art. The teacher of drama who is constantly seeking to augment his collection of plays will welcome the anthology<sup>1</sup> compiled and edited by LeRoy Phillips and Theodore Johnson.

The book has at least three highly commendable features. It contains twenty plays, an unusually large number of selections for a book planned for school use. The plays are chosen with careful attention to variety of subject matter and form; yet they are almost without exception plays that inexperienced pupils can stage—a feature which is distinctly not characteristic of many anthologies. Finally, the book is to be commended for the originality of the selections. The editors may be justly proud of the fact that, with one exception, the book contains plays appearing in no other anthology. Many of the plays have not been previously published.

The selections reveal the editors' interest in strong characterization and vigorous dramatic situation. Pupils will enjoy "The Dwellers in Darkness" by Reginald Berkeley, "Dawn" by Percival Wilde, and "The Killer" by Albert Cowles for their vivid atmosphere and novel situations. "Grandma Pulls the String" by Edith Barnard Delano, "A Fool of a Man" by Rose Fyleman, "Uncle Jimmy" by Zona Gale, and "Trifles" by Susan Glaspell give opportunity for careful study in characterization.

The editors have included in an appendix notes on the study of the one-act play and study questions on the plays. The notes are not particularly original. The study questions might have been more profitably included with the biographical notes that precede each play.

An introductory essay by Professor G. P. Baker, director of the University Theatre of Yale University, is interesting for its account of the development of the one-act play and the conditions which have influenced the changes in its popularity.

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RUSSELL B. THOMAS

*Educational survey of Mississippi.*—Since the first city-school survey was made in 1911, the survey movement has been extended in scope to include county and state systems and higher institutions of learning. In some cases attention has been directed to special aspects of the school system, such as buildings, administrative organization, and finance.

<sup>1</sup> *Types of Modern Dramatic Composition: An Anthology of One-Act Plays for Schools and Colleges.* Selected and edited by LeRoy Phillips and Theodore Johnson. Boston: Ginn & Co., 1927. Pp. xiv+418. \$1.60.

The Mississippi survey<sup>1</sup> is devoted specifically to a study of the intellectual status and educational progress of pupils. The study grew out of fundamental questions raised by an earlier study on *Public Education in Mississippi*. The educational levels studied are the elementary school, the high school, and the Freshman year in college, and pupils in both white and colored schools are included.

The first three parts of the report present the scope and character of the study, the classification and progress of pupils in the elementary and high schools, and the educational status of pupils. The fourth part contains three appendixes. A brief résumé concludes each chapter in the second and third parts.

Several of the findings of the survey are of general interest. Children enter school earlier in Mississippi than elsewhere, and they are retained longer as a result of a lenient policy of promotion. In every grade, however, there is great variation in mental maturity among both white and negro pupils. Negro pupils are seriously retarded when measured by the standards used to measure white pupils. Over-age pupils and pupils of low I.Q. are eliminated more rapidly in negro high schools than in white high schools. White pupils have higher I.Q.'s, age for age or grade for grade, than do negro pupils. Urban pupils show a higher mental rating than do rural pupils, but rural pupils achieve as much in proportion to their ability. Negro pupils apparently achieve more in proportion to their ability than do white pupils. In a comparison of Seniors in white high schools in Mississippi with Seniors in high schools in Iowa, it was found that the Mississippi Seniors rank higher in mathematics but lower in English, science, and history. The study also shows that college Freshmen as a group rank slightly higher than do high-school Seniors in the state as a whole but that "they rank lower in every test than the Seniors in high schools in cities over 2,500 population, taken together" (p. 301). The students in the coeducational colleges rank higher on the psychological and educational tests than do the students in either the men's or the women's colleges.

Two weaknesses of the report are: (1) certain conclusions are not warranted by the data presented; and (2) the educational implications of the findings are not always pointed out. For example, Table XLIII (p. 162) shows that there are thirty-two males in college in Mississippi per 10,000 male population. If it is assumed that in Mississippi only white males go to college and if it is noted that only 47.7 per cent of the population is white (United States Census, 1920, II, 34), it is found that there are sixty-seven white males in college per 10,000 instead of thirty-two. Since twenty-four states have larger proportions of males in college than sixty-seven per 10,000, one questions the author's conclusion that "it is probable that a larger proportion of white boys in Mississippi than in most other states is enrolled in college" (p. 163). Similarly, the author does not present any specific data to support his contention that pupils of low men-

<sup>1</sup> M. V. O'Shea, *A State Educational System at Work*. Jackson, Mississippi: Bernard B. Jones Fund, 1927. Pp. xvi+368.

tality "cannot complete mathematical and linguistic courses that are maintained up to the usual standard" (pp. 150, 178, 180, 181, 184). Furthermore, the author finds noticeable differences in mental ability between rural and urban pupils and between negro and white pupils (p. 226). The reader, however, is left to wonder what the educational significance of these differences is. Will such differences demand different standards of achievement, different educational aims, or what?

It should be said in favor of the report that the lay reader has been kept in mind throughout; any technical procedures used are explained in simple terms easily within the layman's grasp. Numerous illustrations lend clearness to an understanding of the most important findings of the study. The conclusions drawn are supported by 116 tables.

The late Governor Henry L. Whitfield, who was at one time superintendent of public instruction for the state and president of the Mississippi State College for Women at Columbus, is given credit for the initiation of the survey.

HAROLD H. PUNKE

*A second-year Latin textbook which emphasizes reading.*—A problem of teaching second-year Latin is to find a wisely graded approach to the difficult reading of the Latin classics. A recent textbook<sup>1</sup> has adopted a plan which in the main assists in the solution of the difficulty.

Simplicity of presentation and the omission of unessential material, especially with reference to syntax, are outstanding features of the book. An abundance of well-adapted reading material proves the purpose of the authors as stated in the Preface: "To foster constantly the power to read Latin." Short selections of connected Latin accompany each of the sixty-eight lessons of which the book consists. In addition, there are ninety-one pages of supplementary material of varied and interesting character. Disconnected sentences have little place in the book and are found only where intensive drill on forms or syntax is demanded.

The book begins with a comprehensive review of first-year essentials. Then the pupil is introduced to the reading of simple stories. Questions in Latin on the reading serve to stimulate somewhat the use of oral Latin. A short exercise to be translated into Latin is a part of most of the lessons. There is emphasis on derivation throughout the book, but in no case does it receive undue consideration. Both the Latin and the English accounts of Roman life in the lessons furnish an excellent background for the pupils. A few Latin songs appear as supplementary material. Suggestions are also given, largely through pictures, for pupils' original expression in Latin, a feature which is highly commendable because opportunity for free writing is a more valuable part of the training than is commonly conceded. The omission of vocabulary lists from the lessons is a thoroughly sound practice. Three hundred and twenty-five words comprise the

<sup>1</sup> Benjamin L. D'Ooge and Dorothy M. Roehm, *Junior Latin Lessons*, Book Two. Boston: Ginn & Co., 1927. Pp. xvi+466+72. \$1.56.

word lists, which, as the authors say, "added to about the same number in Book One, make a total well within the mastery of the average class" (p. iv).

The slow, steady approach to more complex reading, the sane treatment of syntax, and the primary consideration for the pupils' ability rather than for the amount of material read are characteristics which recommend the book for adoption. Those teachers who have appreciated Book One by the same authors will find the plan of Book Two similarly gratifying.

MARJORIE FAY

### CURRENT PUBLICATIONS RECEIVED

#### GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

BORGESON, FRITHIOF CARL. *The Administration of Elementary and Secondary Education in Sweden*. Teachers College Contributions to Education, No. 278. New York: Teachers College, Columbia University, 1927. Pp. viii+232. \$1.50.

BRUBACHER, JOHN SEILER. *The Judicial Power of the New York State Commissioner of Education*. Teachers College Contributions to Education, No. 295. New York: Teachers College, Columbia University, 1927. Pp. vi+174. \$1.50.

BURNS, ROBERT LEO. *Measurement of the Need for Transporting Pupils: Basis for State Equalization of Transportation Costs*. Teachers College Contributions to Education, No. 289. New York: Teachers College, Columbia University, 1927. Pp. 62. \$1.50.

DAWSON, HOWARD A. *Standards of Expenditures for the Principal Items of City School Costs*. George Peabody College for Teachers Contributions to Education, Number Thirty-one. Nashville, Tennessee: George Peabody College for Teachers, 1927. Pp. 174.

ELLIS, ROBERT S. *Standardizing Teachers' Examinations and the Distribution of Class Marks*. Bloomington, Illinois: Public School Publishing Co., 1927. Pp. 170. \$0.75.

HARAP, HENRY. *The Technique of Curriculum Making*. New York: Macmillan Co., 1928. Pp. xii+316.

JEWETT, IDA A. *English in State Teachers Colleges: A Catalogue Study*. Teachers College Contributions to Education, No. 286. New York: Teachers College, Columbia University, 1927. Pp. viii+176. \$1.50.

JOHNSON, GEORGIA BORG. *Organization of the Required Physical Education for Women in State Universities*. Teachers College Contributions to Education, No. 253. New York: Teachers College, Columbia University, 1928. Pp. viii+172. \$1.50.

REESE, WEBSTER P. *Personality and Success in Teaching*. Boston: Richard G. Badger, 1928. Pp. xii+146.

*Selected Topics in the Teaching of Mathematics.* Third Yearbook of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1928. Pp. 276.

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BLISS, WALTON B. *Your School and You: A Textbook of Guidance.* Chicago: Allyn & Bacon, 1927. Pp. x+248.

BUFFUM, CHARLES A. *Essentials of Latin.* New York: Globe Book Co., 1928. Pp. vi+154. \$0.67.

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SCUDDER, JARED W. *Second Latin*. Chicago: Allyn & Bacon, 1927. Pp. xxviii+642.

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